Oil, Paint and Drug Reporter

THE CHEMICAL MARKET AUTHORITY

September 26, 1960

OPD SPECIAL 'DEPTH' REPORT PAGE FIVE

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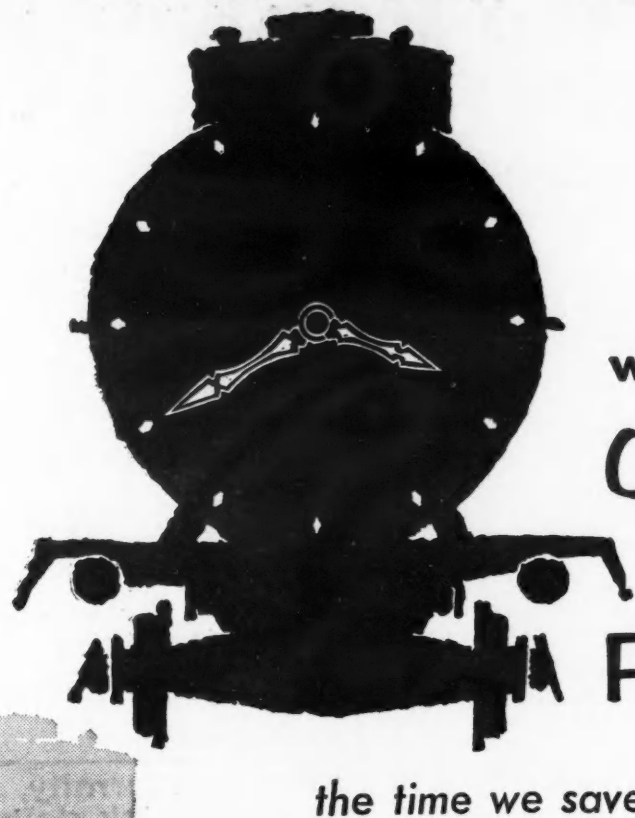

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Oil, Paint and Drug Reporter

Vol. 178 No. 14 30 Church St., New York 7, N. Y. September 26, 1960

MOVES HIGHER: F. Leonard Bryant, a vice-president of Hooker Chemical Corporation, elevated to executive vice-president and a member of the board of directors.

Italian Chemical Growth Rate Of Around 12.5 Percent a Year Leads the World's Producers

Chemical Market Research Association at its meeting in Portsmouth, N. H., last week looked into European chemical growth: Italy, West Germany, Britain and France. What it found out is detailed below and elsewhere on this page. For comparisons, see OPD's first-hand reports-in-depth from abroad on the UK (May 30th issue) and France (July 25).

The Italian chemical industry leads the world at present in growth rate, with an annual increment of 12.5 percent per annum over the past five years. This means a 50 percent increase since 1955. To put this in proper perspective: Growth rate of the chemical industry in the US since 1955 has been 20 percent overall, or a puny 5 percent per year by comparison. Sounding the claxon of competition, the European chemical industry descended on CMRA last week with ominous tidings for American producers: Italy, West Germany, Britain and France are growing at a pace far outstripping that of the US.

Germany's growth is second to that of Italy's, as the Federal Republic has been racking up 11.5 percent per year gains, or a total of 46 percent for the past five years.

Further pointing up the chemical explosion in Europe, West Germany—which was nowhere in 1945, you'll remember—accounted for 6.4 percent of the world's chemical production in 1955, and 7.1 percent in 1959.

*Italy's Chemical Gains**

	1959	1958
Inorganics		
Sulfuric acid	2,053,000	2,031,000
Nitric Acid	949,000	865,000
Hydrochloric acid	117,000	103,000
Ammonia	726,000	609,000
Caustic soda	343,000	274,000
Sodium Carbonate	491,000	415,000
Calcium Carbide	299,000	320,000
Carbon Bisulfide	46,000	40,000
Organics		
Acetic acid	35,000	35,000
Phenol	11,000	15,000
Methanol	48,000	43,000
Formaldehyde (100 percent)	24,000	20,000
Urea	119,000	108,000
Plastics	253,000	180,000
Other		
Hydrogen Peroxide	7,000	7,000
Tartaric acid	8,000	6,000
Trichloroethylene	33,000	35,000
Organic colors	15,000	11,000

* Metric tons.

At the same time, the United States dropped from 45.7 percent to 42.0 percent.

Within the European Economic Community (EEC), the Germans also have eked out a larger portion of production pie over the past several years:

In 1955, the Federal Republic's share amounted to 40.7 percent; in 1959—43.6 percent. However, West Germany doesn't expect to retain this hunk of business much longer.

Reason: Vast resources of natural gas and petroleum available to France and Italy, which the Germans don't have.

As for the Italian industry—it has really

—Continued on page 68

SWITCHES COMPANIES: Carl A. Setterstrom, formerly general manager of marketing for AviSun Corporation, named vice-president of marketing by Rexall Chemical Company, Los Angeles.

Monsanto Will Put Up Phenol Plant in Texas

Monsanto Chemical Company will build a new phenol plant in the Texas City, Tex., area. The installation, slated to go into operation in the spring of 1962, will have a capacity of 50 million to 75 million pounds a year.

This will make the St. Louis, Mo., company's third phenol producing point. Other facilities are located at Monsanto, Ill., and at Avon, Calif.

The Texas City project is expected to

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Reichhold Unit in Florida Being Enlarged for Plastics

Reichhold Chemicals, Inc., plans to expand it; Jacksonville, Fla., facilities to include a 10-million-pounds-per-year combination unit for the production of polyester and alkyd resins.

To be built at a cost of approximately $500,000, the unit will include the sixth polyester facility to have been added by the White Plains, N. Y., firm during the past five years.

Chemical Shipping Faces a Certainty: Increase in Costs

A rash of knotty traffic problems is on the rise in the chemical industry, adding up to but one thing to chemical shippers—higher costs for moving the industry's products around the country.

The problems range from projected increases in freight rates by the railroads to squabbles among cargo carriers over expanding use of collapsible containers and to warnings from the Interstate Commerce Commission of an intensified enforcement program against questionable practices by shippers trying to reduce shipping costs.

Traffic officers in the chemical companies have all been alerted to these developments and will be giving them close attention at forthcoming meetings in the next six weeks.

MCA, NPVLA Slate Meetings

At least two such meetings already have been scheduled — the traffic committee of the Manufacturing Chemists' Association in San Francisco September 28 to 30 and a traffic forum of the paint industry's committee to be held October 28 in connection with the convention of the National Paint, Varnish & Lacquer Association in Chicago, October 27 to 29.

Of immediate concern is the latest move of the Class I railroads to boost freight rates an additional $100 million annually. The cost of this increase to the chemical industry has not been tabulated in dollars and cents as yet, but is of sufficient concern to cause at least one branch of the industry—fertilizer manufacturers—to announce its intentions to oppose it.

Railroad officials describe the increase as "the smallest that has ever been sought" amounting to about 1 percent. The last general increase was in February, 1958, and averaged about 2 percent, which forced many chemical shippers to adjust their prices to pass the increase on because they could not afford to absorb it.

Due to go into effect October 24, unless the ICC intervenes to set aside the increase pending hearings and an investigation, the principal provisions of the rate boost plan are:

- Line-haul rates on all commodities (except coal and lignite), where the rates are quoted in cents per 100 pounds, are to be increased ½ cent where present rates do not exceed 65 cents and 1 cent where rates exceed 65 cents.
- Where rates are quoted per ton, the increase is to be 10 cents per net ton and 11 cents per gross ton on rates not exceeding $13. The increase generally will climb to 20 cents per net ton and 22 cents per gross ton on rates higher than $13.
- On per-car rates, the increase would be $3 per car generally, with exceptions

—Continued on page 43

Chemetron Appeal Denied, $6.5 Million Suit Is Faced

Chemetron Corporation must stand trial in the City Court of Savannah on Southern Nitrogen Company's full damage claim of $6.5 million. That's how matters are this week in the wake of an action by the Georgia Court of Appeals dismissing an appeal by Chemetron as premature.

Chemetron had argued that Southern Nitrogen could not legally claim damages for allegedly lost profits.

The company is charged with delay and negligence by its Girdler Construction Division in the construction of Southern's nitrogen fertilizer plant, begun in 1956.

Southern Nitrogen charges that time was lost from design error and other failures by Girdler. The company claims further that the plant's ammonia section, the major unit, would not perform in accordance with Girdler's representations.

UK Chemicals to Grow At a Fairly High Rate

British chemical production, whose rapid development is bolstered by heavy capital investment, is expected to grow at a fairly high rate. Major increases are expected to come in heavy organics (including petrochemicals), plastics, noncellulosic man-made fibers, and perhaps in pharmaceuticals as well.

As far as can be foreseen, capital and labor will be forthcoming without difficulty and it's unlikely that there will be shortages of raw materials—even of those which have to be imported.

No Petroleum Reserves in Britain

Regarding petroleum, Britain is practically without reserves, but this situation is not expected to hamper petrochemicals development one whit in the UK.

Britain's heavy chemicals industry is in good shape, being able to supply virtually all domestic requirements. Notable exceptions: potassium chloride and some electrothermo products such as silicon carbide and fused aluminas.

Comparison of output of heavy chemicals between the US and the UK can be shown in the folowing figures for 1958:

	Tons	
	US	UK
Sulfuric acid	15,300,000	2,500,000
Alkalies	8,000,000	2,000,000
Nitrogen	2,400,000	400,000

Recent key advances: Carbon black is now put out at a 110,000-ton-a-year clip; titanium dioxide is being made in similar quantities.

Calcium carbide output ranges between 110,000 and 170,000 tons per annum, but with expansions will go to 400,000 tons by 1962. Detergent phosphates and hydrogen fluoride are also making headway.

In Britain, and everywhere else these

—Continued on page 60

Foster Grant Co. Schedules Texas Polyethylene Facility

Foster Grant Company, Leominster, Mass., will build a multi-million dollar polyethylene plant in Beaumont, Tex., adjacent to Mobil Chemical Company's ethylene plant.

The new unit, scheduled for completion by mid-1961, will produce polyethylene by the high-pressure polymerization process. Foster Grant and Mobil "will work together on the development of high-pressure polyethylene and applications which would be of mutual interest," a spokesman for Foster Grant says.

France Hits Chemical Jackpot Via Natural Gas Find

France has hit the chemical jackpot, and intends to reap the benefits of its good fortune. In this case the lucky strike is natural gas—10.6 billion cubic feet of it, two-thirds of which can be recovered.

This discovery has spawned a formidable complex of chemical producing plants which promise to cause quite a stir in the European and world chemical picture.

Biggest flash so far has been made by sulfur. The Lacq sour gas deposits promise to yield up to 1.2 million tons of sulfur in 1961—pushing past Mexico as the world's No. 2 producer. The remarkable growth of this industry is shown in that only 425,000 tons were put out in 1959.

The wealth of synthesis gas also accounts for formation of three other hybrid companies:

- Acetalacq, for acetaldehyde and derivatives, formed by Pechiney, Saint Cobain, Rhone-Poulenc, Pierre Fitte and Usines de Melle.
- Acquitaine Chimie, for acetylene, ammonia and methanol, by Pechiney, Saint Gobain, Pierre Fitte and ONIA.
- Azolacq, for ammonia, by Pierre Fitte and ONIA.

As a chemical producer, France ranks second in the European Common Market, third in Western Europe and sixth in the world. It is fourth in exports of chemicals.

However, for proper perspective, where the US turned out $25 billion in chemicals last year, the French produced $2.75 billion—about one-tenth as much.

In order to increase its share of world production, French industry is doing the following:

- Capacity for olefins will rise to 326,-

—Continued on page 38

Para-Chlorothiophenol: Now on Stauffer's List

Stauffer Chemical Company has just added para-chlorothiophenol to its product list.

The company, hitherto only a captive user of its own product, has started commercial output at Henderson, Nev.

Major markets targeted by Stauffer: oil additives, agricultural chemicals, plasticizers, rubber chemicals, dyes, wetting agents and stabilizers.

Ultramarine Blue May Soon Find Color Returning to the Business

The domestic ultramarine blue pigment producing industry, which has been fast fading out of the picture as a result of mounting pressures of foreign competitors in the American market, may get its color back from the government. The Tariff Commission last week announced that it is investigating imports of ultramarine blues into this country and their threats to continue existence of a domestic industry, and has invited all interested parties to participate in a hearing on the question next January 17.

The commission's announcement was not wholly unexpected. The plight of the industry was brought to the attention of the commission during hearings last July on the products slated for tariff negotiations at the discussions under the General Agreement on Tariffs & Trade next January.

Lone Spokesman Makes Strong Case

The industry's lone spokesman, W. H. Stark, of Standard Ultramarine & Color Company, Huntington, W. Va., so impressed the commission with his complaint that he was invited to renew his application for relief under the trade agreements escape clause and was virtually assured that ultramrine blue would not be one of the products considered in the GATT meetings.

The commission's announcement stated that the commission had found in the course of investigation "that an increase in duty or additional import restriction" on ultramarine blue is "required to avoid serious injury to the domestic industry."

The hearing will deal specifically with ultramarine blue and wash and all other blus containing ultramarine, provided for in paragraph 68 of the tariff act of 1930."

Standard Ultramarine & Color Company is the last of the ultramarine blue pigment producers left in the country. Mr. Stark told the commission in July that the company's price for ultramarine blue averages 29.8 cents a pound and has remained unchanged since 1953.

Since that time imports of competitive pigments have risen from 702,000 pounds to

—*Continued on page 48*

Project HOPE Finds Drug Men Behind It

The nation's prescription drug makers are behind Project HOPE —$780,000 worth. They have just contributed over $100,000 in cash and the balance in products.

Fifty-two of the nation's leading drug makers, all members of the Pharmaceutical Manufacturers Association, took part in the program, which was coordinated by PMA. Project HOPE, sponsored by the People-to-People Health Foundations, has just sent a hospital ship, the SS HOPE I, to southeast Asia.

Sandalwood Periled By Cheaper Synthetic

A new chemical which reportedly can replace scarce and high-priced sandalwood oil has been developed and put on the market by an old-timer in the game—Givaudan-Delawanna, Inc., New York.

The material, a polycyclic alcohol tradenamed "Sandela GD," is being made available at $6.20 a pound in drums, as against a current quotation of $22.50 for the natural product, which is particularly tight right now.

"Sandela GD" is said to have all the desirable characteristics of sandalwood oil including persistence, tenacity and heaviness of odor. Its residual properties are reported to be superior to those of sandalwood.

Givaudan says these properties have

—*Continued on page 43*

Ross Starts Production Of New Synthetic Wax

Frank B. Ross Company, Jersey City, N. J., has started commercial production of a new high-melting synthetic wax. The material is described as a brown, hard wax with a melting point of 156 degree Centigrade, a high flash point and good electrical insulating properties.

Trade-named "Ross Wax 160," the product is suggested for use in dielectric coatings and encapsulations and as a dry powder lubricant for drawing metal wire. In plastics, it is recommended as an integral lubricant and mold release. In textile finishing, the wax is said to aid waterproofing and fiber lubrication.

FDA Starts Tightening Up On Integrity of New Drugs

A stepped-up program of closer supervision of the integrity of new drugs is being launched by Food & Drug Administration.

The agency announced intentions last week to require the submission of samples along with all applications for new drug clearances in the future. It was also learned that an increasing number of spot checks is to be made of new drugs already on the market to see that they conform to the statements made in the applications.

Manufacturers have been invited to comment on the changes in the regulations in thirty days. The changes were announced in the *Federal Register* of September 23.

Under existing rules, drug producers submit three samples of the finished market packages after the new drug application have been approved and production is under way. The revised regulations

—*Continued on page 43*

The Week's Price Changes

Cocoa Butter, Coconut Oil, Copra, Lard, Molasses Advanced. Casein, Corn Oil, Greases, Tallow, Vanilla Beans Reduced.

Prices Advanced

Cocoa butter, 1c. per lb. (p. 61)
Coconut oil, crude, ¼c. per lb. (p. 61).
Copra, $2.50 per ton (p. 61).
Lard, cash, ¼c. per lb. (p. 61).
Molasses, New Orleans, ¾c. per gal. (p. 47).

Prices Reduced

Casein, Argentine, ½c. per lb. (p. 57)
Corn oil, ½c. per lb. (p. 61).
Greases, ½c. per lb. (p. 61).
Linseed meal, 50c. per ton (p. 61).
Peanut oil, crude, ¼c. per lb. (p. 61).
Soybean meal, $1 per ton (p. 61).
Tallow, inedible, ¼c. per lb. (p. 61).
Vanilla beans, Bourbon, 50c. per lb. (p. 59).
Mexican cut, 75c. per lb. (p. 59)
Mexican whole, $1.25 per lb. (p. 59).

OPD Price Index

THE OIL, PAINT AND DRUG REPORTER'S relative record of prices of chemicals and related materials is currently as follows:

(100=1949 average)

Sept. 23, 1960	Sept. 16, 1960	Sept. 25, 1959
109.53	109.60	108.99

R&D: They're Called 'Dynamic'

Economic energy unleashed by research should catapult the US economy to $750 billion by 1970. But not if somebody starts tampering with the patent and trademark laws. John T. Connor, from his vantage point as president of Merck & Co., sees research and development as the "most dynamic economic force of the decade." But without government's protection of patent and trademark rights, this force would dry up at its source, he feels.

Addressing a meeting of the Federal Wholesale Druggists' Association in White Sulphur Springs, W. Va., last week, Mr. Connor argued that American industry, led by pharmaceutical makers, has expanded its R&D developments because it could make a profit out of "systemitized discovery."

'Assembly Line for Discoveries'

"What is new today," says Mr. Connor, "is the creation of what amounts to an assembly line for the planned production of discoveries and the effect this may have on the future of our economic growth.

"For the past few years," he notes, "this assembly line has been turning out an increasing number of new materials, new products, new tools and new ways of doing things. Some of them have already made their way to the market place. But the real flood is expected later in the sixties."

In correlating growth rate with research expenditures, Mr. Connor cites the

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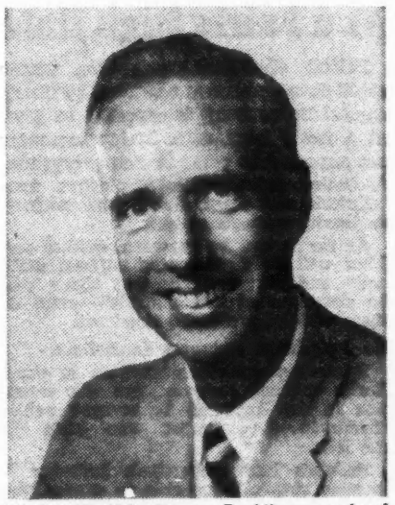

IN SALES JOB: Thomas T. Allan, appointed assistant manager of the industrial chemical sales department of Virginia Smelting Company, West Norfolk, Va.

Monsanto, Spanish Firm Form Joint Overseas Unit

Monsanto Chemical Company has boosted its plastics operations in Spain by formation of a jointly-owned company with Aiscondel, SA, of Barcelona.

The new company, Monsanto Iberica, SA, has slated a plant at Monzon, Spain, for production of calcium carbide, acetylene and acetylene derivatives.

Aiscondel has already sold to the jointly-held firm a plant near Barcelona which turns out plasticizers, stabilizers and lauryl peroxide for the plastics processing industry.

This is Monsanto's second Spanish venture. Through Monsanto Overseas, SA, the company owns a 25 percent interest in Etino-Quimica, SA, which produces caustic soda, chlorine, polystyrene and vinyl chloride monomer and polymer.

Nat'l Phosphate Advancing On Phosphoric Acid Plant

National Phosphate Corporation, New York, reports that construction is 50 percent completed in a new phosphoric acid plant in Marseilles, Ill.

The plant has been designed by Chemical Construction Corporation, New York, to produce 54 percent P_2O_5 phosphoric acid by the wet-process method, using Florida phosphate rock and 93-98 percent sulfuric acid.

Special process features at the unit allow a substantial reduction in water requirements and elimination of chlorine from plant effluent, Chemico says.

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CAUSTIC-CALCINED MAGNESIA
Gains in New Uses Offset Losses in Old

	*1960	1959
Oxychloride, Oxysulfate Cement	30,000 tons	26,506 tons
85% MgO Insulation	5,000 tons	*8,000 tons
Rubber	2,500 tons	*2,500 tons
Uranium Processing	2,500 tons	4,868 tons
Chemical Processing	1,000 tons	1,082 tons
Rayon	1,000 tons	1,082 tons
Refractories	1,000 tons	545 tons
Miscellaneous	12,000 tons	9,510 tons
Total	55,000 tons	54,093 tons

*Estimates. Other figures based on Bureau of Mines totals.

OPD Reports From Europe

Unilever Margarine Plight Shows Lurking Danger in Food Additives

A move by Dutch public health authorities to ban several brands of Unilever margarine because of the possibility of a toxic "anti-sputtering" additive is the latest act in a drama that has made food additive problems a household topic of conversation, and worry, throughout Europe. Unilever's difficulties in Holland demonstrate the food additive troubles that can beset a manufacturer even after the most careful and prolonged tests. And one result of the outbreak, highly publicized throughout Europe, almost certainly will be an intense re-examination of food additives legislation.

A margarine brand—"New Planta"—was put on the market this summer by Van den Berghs en Jurgens, a Rotterdam subsidiary of huge Unilever, NV.

At Least Two Deaths Reported

Toward the end of August, people in Holland and Germany started coming down with a skin irritation in which a rash under the skin is accompanied by high fever. At least two deaths have been attributed to the skin condition.

Suspicion centered on the new brand of margarine and the company suspended production and withdrew the product from the market. All told about five million packages of the brand involved were distributed, it's reported.

And in the latest move, the Dutch health authorities acted against additional Unilever brands because of the possibility

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MARKETING HEAD: Frank E. Maple, named sales manager of the nitroparaffins department of Commercial Solvents Corporation, New York.

Chemicals for Autos: Competition Tougher

Automotive chemicals competition, which gets tougher all the time, is spotlighted this week by word from Ethyl Corporation, New York, saying that the company now is adding two new products to its line of fuel and lubricant additives.

Ethyl and E. I. duPont de Nemours & Co., who traded price cuts in antiknock

—Continued on page 69

Montrose Planning Merger With Rubber Firm, Brewer

A three-way merger is under discussion by Montrose Chemical Company, Baldwin Rubber Company and Centlivre Brewing Corporation.

Montrose, located in Newark, N. J., produces DDT and other chemicals. Baldwin turns out plastic film as well as rubber products at Pontiac, Mich. Centlivre brews beer and reportedly has contracted to buy a New York talent agency.

Current plans call for formation of a new company to be known as Baldwin-Montrose Chemical Company, which would issue convertible preferred stock in exchange for the common stocks of Montrose and Baldwin. Centlivre's common stock would become the common stock of the new company.

Magnesium Oxide's Future Tied To Steel, Whose Slackness Now Doesn't Hide Bright Potential

The magnesium oxide industry, heavily dependent on steel operations for its business, faces an optimistic, if somewhat beclouded, future. Biggest cloud right now is the slackness of the steel industry itself, running at rates only a bit more than 50 percent of capacity. How soon steel markets pick up will dictate how soon the magnesium oxide business will pick up. The way things are going, the magnesia industry is hoping for about the same level of business this year that it had in 1959.

OPD 'Depth' Report

Beyond this, however, it is difficult to predict. Last year, 517,941 tons of refractory magnesia were produced, up more than 20 percent from the 414,874 tons made in 1958. It's estimated that more than 60 percent of these totals went to the steel industry in basic refractory bricks.

This sharp gain was registered in the face of a protracted steel strike during 1959. Modest gains are expected this year also despite the fact that steel has been floundering around at the half-of-capacity level.

There are two main reasons for this increase in consumption of refractory magnesia in the face of setbacks in steel production: roofing of openhearth furnaces with basic bricks, and new construction of "LD"-type oxygen converters by the steel industry which use magnesite-dolomite linings.

MgO Capacity Hikes Due to Steel

Changes in steel technology have been largely responsible for any increases in domestic MgO production capacity during the past five years. Some of the expansions:

- Michigan Chemical Corporation is working process bugs out of a brand new 70,000-ton-a-year plant in Port St. Joe, Fla.
- Standard Lime & Cement Company, which doubled its capacity at Manistee, Mich., to 35,000 tons annually in 1956, plans to add one-third more in 1961, making total potential 45,000-50,000 tons per annum.
- Northwest Magnesite Company, a subsidiary of Harbison-Walker Refractories Company, is adding a 50,000-ton expansion to its seawater magnesia plant at Cape May, N. J. Capacity in 1961: 160,000 tons a year.
- Basic, Inc., boosted its capacity during 1959 to a total of 160,000 tons per year at Gabbs, Nev., continuing expansions begun the previous year.
- H. K. Porter Company began producing chrome-magnesite and magnesite-chrome refractory brick at its 60,000-ton-a year seawater magnesia installation at Pascagoula, Miss.
- Kaiser Aluminum & Chemical Company put up a 45,000-ton-a-year magnesium oxide plant at Midland, Mich., supplied with magnesium hydroxide by Dow Chemical Company from deep brine wells.

Prior recent developments: a 70,000-ton-a-year plant built by Harbison-Walker at Ludington, Mich., and a 50,000-ton-per-annum facility put up by E. J. LaVino Company in Freeport, Tex.

Significance of these expansion moves is threefold: 1) Extra capacity is for the refractory industry; 2) with the exception of the Basic expansion at Gabbs, all is from seawater or brine, and 3) chemical grades of magnesia scarcely figure at all in the expansions.

The refractory magnesia industry bases its capacity expansions chiefly on increasing and changing needs of the steel industry. Specifically, the advent of the basic

—Continued on page 36

MAGNESIA USE

1960 . . .	*575,000 tons
1959 . . .	572,034 tons
1958 . . .	459,495 tons
1957 . . .	528,538 tons
1956 . . .	466,127 tons
1955 . . .	454,512 tons
1954 . . .	350,524 tons
1953 . . .	442,152 tons

*Estimate
Source: Bureau of Mines

Olin Is Set to Build Big Phosphoric Plant

Olin Mathieson Chemical Corporation will build a $1.5 million phosphoric acid plant at Joliet, Ill., to help meet the growing demand for high analysis fertilizers. The new unit, with capacity of 50,000 tons a year, will supply plant food makers in the midwest.

With construction contracts already let, Olin expects to complete the plant by next April. It will become part of the company's Blockson operation, which reportedly pioneered the wet-process method of production of phosphoric acid for manufacture of sodium phosphates.

The phosphoric acid turned out by the

—Continued on page 52

Shell Picks a Works Site For Polyisoprene Venture

Shell Chemical Company is acquiring a site fifteen miles west of Marietta, Ohio, for a new multi-million dollar polyisoprene plant. The action is in line with an announcement last spring for expanding Shell's polyisoprene facilities to a capacity of 120 million pounds a year.

The new plant, with a capacity of 80 million pounds yearly, is expected to come on stream late in 1961.

JOINS NEW FIRM: Proctor Thomas, named director of domestic sales for Pan American Sulphur Company, Houston, Tex. He had been an official of Houston Natural Gas Company.

Water Pollution: Chemical Firms to Get Breakdowns

Chemical companies along the Great Lakes Basin-Illinois Waterway are soon going to get their own individual breakdown on just how much pollution they are pouring into the area.

The information will come from Public Health Service, which is now initiating a six-year anti-pollution study of the entire territory. The project is being undertaken with a $500,000 appropriation congress wrote into the annual money bill for the Department of Health, Education & Welfare.

The study will be conducted by the PHS Division of Water Supply and Pollution Control and will be directed to:

- An inventory of all points of inflow into the Chicago River, Sanitary and Ship Canal, the Calumet-Sag Canal, and their tributaries.
- Measurement and analysis of municipal and industrial wastes being discharged at such points of inflow.
- Effect of such discharges on water quality of the Illinois Waterway under present rate of flow.
- Methods of improving water quality of the Illinois Waterway.
- Determination of water quality of the Illinois Waterway under present and various decreased rates of flow.

The six-year study of the United States portion of the Great Lakes Basin-Illinois Waterway is designed to aid development of a comprehensive plan to control and prevent pollution in the area.

The recent appropriation of $500,000 covers the first year of the project. The funds will be used to start intensive studies of the kinds and amounts of municipal and industrial wastes being discharged

—Continued on page 62

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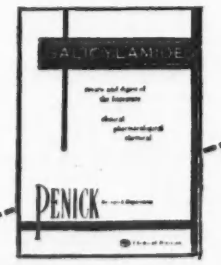

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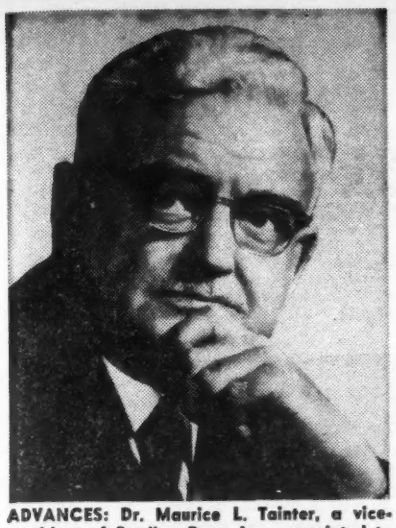

ADVANCES: Dr. Maurice L. Tainter, a vice-president of Sterling Drug, Inc., appointed to the newly-created post of vice-chairman of the Sterling Research Board.

Asbestos a Problem For Canada's Miners

Canadian asbestos miners have their problems. Faced with intensified foreign competition plus increased domestic capacity, the industry finds itself operating today in a market a good deal narrower than what it could supply.

Current signs, however, point to greater world demand in the near future, says the Canadian Department of Trade & Commerce. This demand would involve such expanding lines as asbestos pipe, sheet and floor tiles.

But ruling out any easy expansion of the market, the agency goes on to say, are such factors as competitive pricing both in Canada and abroad and the introduction of new materials vieing with asbestos. Most formidable among the latter are plastics and fiberglass. If it means progress, the industry will have to struggle, the agency adds.

Though its share has diminished, Canada continues to be the world's leading producer of asbestos fiber, accounting for 50 to 60 percent of total consumption, it is reported.

Last year Canadian mines produced 1.05 million tons out of an estimated out-

—Continued on page 60

Luedeke Succeeds Maple In Sales Position at CSC

Arthur W. Luedeke has been named sales manager of the industrial chemicals sales department of Commercial Solvents Corporation, New York. Mr. Luedeke succeeds Frank E. Maple, who will head a newly-created marketing department for the company's nitroparaffin products (see picture story on page 5).

Robert A. Mohrman, who has been assistant sales manager of pharamceuticals since 1958, has been elevated to sales manager of the pharmaceutical department.

Plastic Makers Have Problems And Want the US to Know It Before GATT Hearings Start

The European Common Market and the opposing group, the Outer Seven, are creating new trade problems for US producers of plastic materials—and this government should take a hard look at this situation before granting any concessions to the countries involved at the upcoming meetings under the General Agreement on Tariffs & Trade. This request was made to officials of the Department of Commerce last week at a meeting called to discuss export trade problems facing the industry.

These difficulties were cited as among the most important on a long list of trade obstacles now being encountered. Another is the Empire preference act under which members of the British Commonwealth receive intra-empire trade preference.

Export Business Rising Steadily

Plastics producers do an export business in excess of $270 million annually, the Department of Commerce said, and this trade has shown a steady rise in recent years.

It was suggested at the meeting that efforts be made by the government to obtain concessions from the Common Market and the Outer Seven countries comparable to those which they grant to their own members. It was also urged that the United Kingdom be asked to reduce the preferential margin in the import duties which it was said are keeping American goods out of the commonwealth countries.

Any concessions that the US grants in the current negotiations should take a realistic view of this situation, the plastics producers said.

High import taxes in Latin America—Brazil and Argentina were specified; import deposits required in Colombia, and the licensing requirements in India were cited as other handicaps. The practice of some countries in excluding all importations of competitive or substitute materials to protect new, local industries, is another trade handicap, it was contended.

Some of the producers also said that the fact that the US exporters are subject to higher ocean shipping rates than are their foreign competitors weighs heavily against US trade.

It was pointed out to that the concess-

—Continued on page 52

Glidden Assumes a Place In Mexican Paint Market

Glidden International CA has entered the expanding Mexican paint market with the acquisition of General Paint Company de Mexico, a wholly-owned subsidiary of the General Pacific Corporation.

Operations of General Paint, with headquarters in Mexico City, will be substantially expanded with the introduction of the Cleveland, Ohio, company's line of consumer products and development of Glidden's industrial product finishes.

Manager of the Mexican operations will be Oscar Rodriguez. Manuel Gutierrez has been appointed general manager of industrial sales with the responsibility for developing Glidden's industrial products finishing operations.

IN HIGH POST: Louis Bay, 2nd, appointed senior vice-president of Dixon Chemical & Research, Inc., Bloomfield, N. J.

Fertilizer Popularity: It Keeps on Climbing

US fertilizer consumption, still climbing, hit 25,312,672 tons during the 1959-59 crop year, up nearly 12 percent over the previous year's level. The total, Department of Agriculture reports, consisted of 24,089,468 tons of primary nutrients and 1,223,204 tons of secondary and trace nutrient materials.

Consumption of the second group was 30.2 percent higher than in 1957-58, USDA notes.

Mixed fertilizers and direct application materials shared about equally in the gains. Highest increases were scored in the western north central, eastern south central and south Atlantic regions, and in Hawaii. Reports from Alaska and the Virgin Islands were too incomplete to be included in the present report.

Overall, the geographical distribution

—Continued on page 60

4-Tert-Butylcatechol Hiked

Dow Chemical Company, Midland, Mich., has advanced prices of 4-tert-butylcatechol by 30 cents a pound, effective immediately on spot and October 1 on contract. Under the new schedule, 100-pound drums sell for $2 a pound, and ten-pound tins for $2.50.

German Picture: Chemical Boom, Labor Shortage

The bigger the boom in West German chemicals the more acute grows that dynamic industry's labor shortage. Today the worker bottleneck is considered the industry's No. 1 problem. Current investment reports indicate that an answer will be sought through greater emphasis on automation with a corresponding decline in appropriations for new facilities.

That's the way Business & Defense Services Administration sizes up the present posture of the West's fastest growing chemical industry.

Boom—Then Labor Shortage

The 1959 boom in the Federal Republic led to and was in turn influenced by a labor shortage which worsened as the year progressed, the US government agency reports.

New postwar highs in production, sales, exports and imports were scored that year, as the modest uptrend of 1958 developed into robust growth which increased production by 14 percent.

Sales rose by 13.6 percent to 20.52 billion marks (One West German mark equals 23.8 US cents.), while the average price index, reflecting increased competition, declined 2.1 percent, BDSA reports.

Coal continued to be the principal source of organic chemicals, the agency goes on to note, but reduced operating capacities at cokeries resulted in lower output of coal byproducts. Increased imports were not quite enough to fill the gap, so that some shortages developed, chiefly in naphthalene and benzene.

In contrast, production of organic petrochemicals rose by 36 percent as refineries and hydrogenation plants processed 44 percent more crude oil. Production of all organic chemicals increased, ethylene oxide, formaldehyde and the intermediates registering the greatest gains.

Output of industrial chemical specialties jumped 19 percent as exports rose 23 percent. The most dynamic branches in this sector were plastics and man-made

—Continued on page 35

Monsanto Forms a Unit To Handle Its Research

The board of directors of Monsanto Chemical Company has authorized the formation of a new wholly-owned subsidiary to be known as Monsanto Research Corporation and has elected Howard K. Nason as president of it.

Mr. Nason, who has been a vice-president of Monsanto and general manager of the research and engineering division since 1956, will assume his new position immediately. Headquarters of the new company will be at St. Louis, Mo.

The board also elected Erwin G. Somogyi of St. Louis a vice-president of Monsanto and appointed him general manager of the research and engineering division. Mr. Somogyi, who has been director of research for the inorganic chemicals division since 1954, will be succeeded by Richard K. Flitcraft.

Association Meetings

American Association of Textile Chemists & Colorists, national convention, Sheraton hotel, Philadelphia, October 6-8.

American Coke & Coal Chemicals Institute, annual meeting, Greenbrier hotel, White Sulphur Springs, W. Va., October 17-18.

American Council of Independent Laboratories, annual meeting, Deauville hotel, Miami Beach, Fla., October 11-15.

American Institute of Chemical Engineers, Mayo hotel, Tulsa, Okla., September 25-28.

American Mining Congress, convention and exposition, Convention Center, Las Vegas, Nev., October 10-13.

American Oil Chemists' Society, fall meeting, New Yorker hotel, New York, October 17-19.

American Tung Oil Association, annual convention, Edgewater Gulf hotel, Edgewater Park, Miss., September 28-29.

Association of Consulting Chemists & Chemical Engineers, annual meeting, Shelburne hotel, New York, October 25.

Association of Official Agricultural Chemists, annual conference, Shoreham hotel, Washington, October 10-12.

Canadian Manufacturers of Chemical Specialties Association, annual meeting, Queen Elizabeth hotel, Montreal, Que., Canada, October 24-26.

Chemical Bureau Alumni Meeting, Lexington hotel, New York, October 20.

Chemical Buyers Group of National Association of Purchasing Agents, fall conference, Pick-Congress hotel, Chicago, October 27.

Chemical Industry Association, dinner meeting, Chemists' Club, New York, September 27.

Chemical Market Research Association, Pittsburgh Hilton hotel, Pittsburgh, Pa., November 9-10.

Commercial Chemical Development Association, joint meeting with the chemical economics division of the Chemical Institute of Canada, Queen Elizabeth hotel, Montreal, Canada, October 18.

Electrochemical Society, Shamrock hotel, Houston, Tex., October 9-13.

Federation of Societies for Paint Technology, annual meeting, Sherman hotel, Chicago, October 31-November 2.

Manufacturing Chemists Association, semi-annual meeting and midyear conference, Statler Hilton hotel, New York, November 22.

National Agricultural Chemicals Association, annual meeting, Del Coronado hotel, Coronado, Calif., September 27-29.

National Drug Trade Conference, annual meeting, Gramercy Park hotel, New York, December 16.

National Foreign Trade Council, national meeting, Waldorf-Astoria hotel, New York, November 14-16.

National Paint, Varnish & Lacquer Association, annual convention, Drake hotel, Chicago, October 27-29.

National Pest Control Association, annual convention, Tulsa, Okla., October 17-20.

Northeastern Weed Control Conference, annual meeting, New Yorker hotel, New York, January 4-6.

Packaging Institute, annual national packaging forum, Statler-Hilton hotel, New York, October 31-November 2.

Parenteral Drug Association, annual convention, Statler hotel, New York, October 19-21.

Pharmaceutical Manufacturers Association, eastern regional meeting, Waldorf-Astoria hotel, New York, December 12-14.

Salesmen's Association of the American Chemical Industry, annual sales clinic, Roosevelt hotel, New York, November 14.

Society of Chemical Industry, American section, chemical industry medal award dinner, Waldorf-Astoria hotel, New York, October 21.

Society of the Plastics Industry, New England section conference, Wentworth-by-the-Sea, Portsmouth, N. H., October 13-14.

Synthetic Organic Chemical Manufacturers Association, monthly luncheon meeting, Roosevelt hotel, New York, October 11.

Toilet Goods Association, scientific section's winter meeting, Waldorf-Astoria hotel, New York, November 30; annual convention, Waldorf-Astoria hotel, New York, May 9-11.

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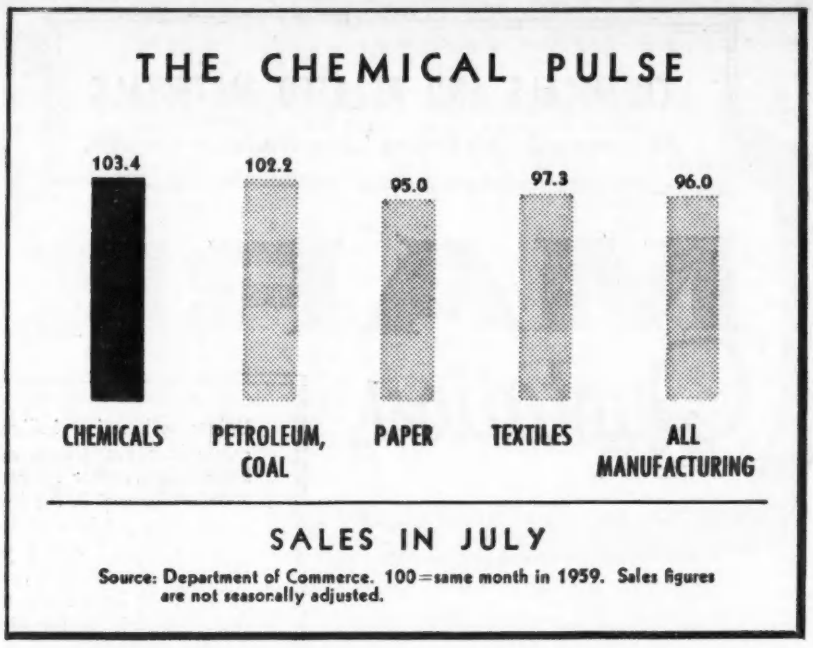

PR for Drugdom

The "vacation" provided for the drug business via its suspension for political purposes should be utilized primarily in an endeavor to find out what has been the consequence of the reaction of the public amicably and commercially to what has been dished out to it in the reporting of the senate committee's "hearings" (?) in the public press. The next step is to do something better than has been done to set things right.

It must be admitted by all who have read that reporting that the pharmaceutical industry, the drug trade, and, at least to some extent, the pharmacal profession have been painted in very dark and most unattractive colors. Their endeavors to prevent their case in what they consider to be its factual hues have not measured up qualitatively or quantitatively to the needs and demands of the biasly-generated situation. One reason is that the public does not read the journals or other publications of the trade.

Therefore, it is not without very good reason that the committee on public relations of the American Pharmaceutical Association has said recently, in sending out to retail druggists a special public relations kit: "We are sure that you will agree with us that these are critical times for pharmacy, especially in the areas of public education. Positive action at national and community levels is called for. . . . The responsibility for action at the community level is yours. A national program, even at top efficiency, is of little value without your support."

The slogan of the APhA public relations campaign is "Progress: From Mystical Poisons to Modern Pharmaceuticals." The kit, which comprises a year-round program, is designed for active application scheduled to start with National Pharmacy Week which opens October 2. It provides clearly useful suggestions and instructions in the utilizing of every available medium of publicity, from show-window to television. Especially pertinent and timely is the text of an address on "Medicines Are Your Best Bargain." Accompanying it in the kit is a copy of the booklet, "Cost of Drugs: Questions and Answers," published by the Pharmaceutical Manufacturers Association. Some means should be found to keep a supply of that fact-teller on the counters of every drug store in the country.

Another lecture text in the kit is entitled "Careers in Pharmacy: Progress and Professional Purpose." It is especially designed for delivery under vocational guidance programs of high schools. Supplementing of that appeal is expected to come as pharmacists get local publicity on what the association will have to say in a special October issue of its *Journal* on the role of the pharmacist in civil defense, defense mobilization and disaster planning.

The APhA public relations campaign can—and no doubt will—do much good for the drug business. It should be given collaborative assistance from all producing and distributing divisions of the group. They need what it will do.

Foreign Policy Moves

Because the foreign policy of this nation has become a most vociferously expressed topic in the current political campaigning, September 17 should be nominated as a national holiday. On that day, Washington made two very commendable contributions to its functioning as a leader in world affairs. One was the its reportedly "surprising" bid to the United Nations to admit fourteen new African nations as members. The other was an order by the President that the flag of Panama be flown alongside that of the United States at one location in the Canal Zone, a section of Panama that is under US control.

Insofar as any evidence has been available, the proposal of recognition of the new African states as members of the international conference faces no political criticism in this country's government. But, the neighborly recognition of Panama's "titular sovereignty" over the area to which the United States has treaty rights has been blasted by several members of the House of Representatives who are active in its functioning with respect to inter-American affairs.

Their criticisms and expressions of fear have no other than partisan bases. It's all a matter of how this nation and its people should look upon and deal with their Latin neighbors.

What HEW Has in Mind

Whatever may be your interest in or concern with anything that has to do in any manner or degree with health, education, or welfare; whatever may be your reaction to the statement by the Secretary of Health, Education & Welfare—"In most respects, the people of the United States are being better served by the federal government in the areas of health, education and welfare than at any other time in our nation's history"—you will agree with that official that the "solution of the attendant problems belongs with the people of this nation." You will certainly go along with him in his saying that the solution "depends upon increased knowledge of the current programs and activities of the government." Acquiring that knowledge is "something else yet."

It is useful to know in that connection that the HEW's Office of Program Analysis has provided a guide to its objectives and processes in a handbook on programs. The 1960 edition of that publication has about 250 octavo pages, filled with information on what is needed and intended to solve the problems of the department's functioning—and in what manner that functioning will affect yours which may have any similarity in objective. The relevancy of the programs in that respect is set forth in parts II and III of the handbook, which have to do respectively with the Public Health Service and the Food & Drug Administration. Pertinent topics in part II include air pollution and water supply and pollution control. With respect to FDA functioning, there is a digest of legislation under which it operates. There is also an outline of the objectives and scope of its present enforcement program and that of defense mobilization.

A copy of the HEW program handbook should be in the reference library of every executive in the industries which serve the public in matters of health or anything else that is likely to be officially classified as welfare. Its usefulness as a source of that knowledge which is required for knowing what is officially in store for you can be worth far more than the dollar and a half that it costs to get a copy from the Government Printing Office, Washington 25, D. C.

OPD'S BOOKSHELF

Food for Thought

With its towering crop surpluses, America has become the land where no one worries about food shortages. Ethyl Corporation thinks this may not always be so and has therefore sponsored FOOD OF AMERICA'S FUTURE* written by twelve authorities, who have done their worrying constructively and in advance. The views expressed are interesting, informative, reassuring and unanimously affirmative.

Fifteen years from now, when the population will have "exploded" to 245 million souls, America should still be eating amply and well, the authors conclude, thanks to its advancing technology, which is always several strides ahead of the wolf.

The book reviews past and present agricultural accomplishments, and its optimistic view of the future is based on a realistic assessment of present trends. Some problems discussed are land area; management of land, labor, and capital; increasing productivity; insect and pest control; energy; power, and manpower. Other factors in the overall problem are not neglected.

*FOOD FOR AMERICA'S FUTURE, sponsored by Ethyl Corporation. 167 pages. McGraw-Hill Book Company, New York. $3.50.

Washington Talks It Over

US Chemical and Drug Companies With Branches in Canada Are Up Against a Ticklish Problem: Do They Follow US or Canadian Line in Doing Business With Red China?

By Ralph L. Cherry
Washington Editor

US chemical and drug manufacturers with subsidiaries or affiliates in Canada are being squeezed betwen the hard policy line of this government against any dealings with Red China and the softer approach exhibited in Canada.

The difficult situation facing these producers has just been pointed up in a study of "Law and US Business in Canada" by the National Planning Association in which a hypothetical chemical company is used as an extreme example.

Resting on a policy of "ostracism of Red China," the US ban on shipment of goods to Red China has been applied not only to US businesses domiciled in this country, but also to those in Canada.

NPA has found that this policy "at least in its extreme form . . . does not accord with either official or popular Canadian opinion," and the "problem in this area is therefore not merely a legal problem; it also involves a divergence of national policies."

The hypothetical chemical company used as an illustration is one that is owned substantially by US stockholders with its board of directors made up in the majority of US citizens. Also its prominence and importance to the Canadian economy is such as to put it in the spotlight of Canadian public opinion.

Should an order come to the firm from Red China for several thousands of barrels of a chemical product which is not on the list of proscribed strategic items for Communist bloc countries, the company is immediately faced with a question of serious importance.

If it should accept the order, directors may lay themselves open to criminal liabilities for violation of the US trading with the enemy act. On the other hand, any request to Washington for permission to make the sale might arouse a storm of indignation in Canada against a Canadian firm knuckling under to Washington.

The only safe course in such a case, NPA suggests, is for the firm to find some pretext for turning down the order, which from the Canadian point of view means curtailing the range of products manufactured in Canada.

Consultations that have been held on exemption requests appear to suggest that "unless the sale is of actual strategic significance," the US Treasury will look sympathetically on waiving the controls if the export is of significance to the Canadian economy and can be filled in Canada "only by a firm whose parent is subject to US control."

CHEMICALS AND RELATED MATERIALS

All matters under this heading fully protected by copyright.

Current MARKET Quotations

Unless otherwise indicated, listings are first-hand quotations prevailing, according to information and belief, September 23 on large lots, f.o.b. New York, with the lowest in the left-hand column and the highest in the right-hand column. The listings do not represent bid and asked prices nor a range over the week. Differences between high and low may be accounted for by differences in quantity, quality, locality, or individual suppliers' views. An index to the weekly market reports is to be found on page 4.

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USP, bbls., 225-lb. dms., any quantity lb. .79 - —
100-lb. dms., any quantity lb. .81 - —
Acetic acid, coml., or redist., 28%, bbls 100 lbs. 4.80 - —
56%, bbls. ..... 100 lbs. 8.25 - —
70%, bbls. ..... 100 lbs. 9.95 - —
80%, bbls. ..... 100 lbs. 10.45 - —
Acetic acid, glacial, syn., CP, dms., dlvd. 100 lbs. 22.00 -23.00
tech., dms., c.l., dlvd. 100 lbs. 13.75 - —
dms., l.c.l., dlvd ..... 100 lbs. 15.25 - —
tanks, dlvd. ..... 100 lbs. 10.00 - —
USP, cbys., dlvd ..... 100 lbs. 31.00 -32.00
Acetic anhydride, aluminum ret. dms., c.l., dlvd. E lb. .16½- —
aluminum ret. dms., l.c.l., dlvd. E. lb. .18 - —
tanks, dlvd. E ..... lb. .14 - —
Acetoacetanilide, fib. dms., c.l., dlvd lb. .80 - —
fib. dms., l.c.l., dlvd ..... lb. .81 - —
Acetoacet-o-chloroanilide, fib. dms., c.l., dlvd lb. 1.35 - —
fib. dms., l.c.l., dlvd ..... lb. 1.36 - —
Acetoacet-o-toluidide, fib. dms., c.l., dlvd lb. .82 - —
fib. dms., l.c.l, dlvd ..... lb. .83 - —
Acetone, CP, dms., c.l., dlvd lb. .10½- —
dms., l.c.l., dlvd ..... lb. .12 - —
tanks, dlvd. ..... lb. .08 - —
Acetonitrile, dms., c.l., t.l., dlvd lb. .35 - —
dms., l.c.l., dlvd ..... lb. .36½- .37
tanks, dlvd. ..... lb. .32 - —
Acetophenetidin, USP, 200-lb. dms., 1,000 lbs., frt. alld lb. 1.20 - —
100-lb. dms., 1,000 lbs., frt. alld. lb. 1.22 - —
Acetophenone, cns., dms ..... lb. .42 - 1.30
Tech., dms., c.l., works ..... lb. .47 - —
dms., l.c.l., works ..... lb. .47¾- —
tanks, works ..... lb. .45 - —
N-Acetyl-p-aminophenol, dms., t.l. (min. 23,000 lbs.), frt. adjusted lb. 1.24 - —
dms., 5,000-lb. lots, same basis lb. 1.30 - 1.45
dms., smaller lots, same basis lb. 1.35 - 1.63
Acetylene black, imp., bgs., c.l., duty and freight extra lb. .20 - —
cs., l.c.l., ex whse ..... lb. .25½- .31
Acetylene tetrabromide, 16-dm. lots or more, f.o.b. works lb. .53 - —
Acetylsalicylic acid, USP, cryst. (20, 40 mesh), powd. (80 mesh), 250-lb. dms., c.l., pt. of shipt lb. .56¼- —
USP, 10% starch granulation, 12-50 mesh, white, 250-lb. dms., c.l., same basis lb. .56¼- —
(Pink and green granulations 5c. per lb. higher.)
Freight equald, shipt. identical quantity over standard routes, from N.Y., Phila., Midland, Mich., Chicago and St. Louis.
Acetyltributyl citrate, tech., non-ret. dms., c.l., frt. alld. E. of Denver lb. .35½- —
non-ret. dms., l.c.l., frt. alld. E. of Denver lb. .36½- —
tanks, frt. alld. E. of Denver. lb. .33 - —
non-ret. dms., c.l., frt. alld. E. of Denver lb. .39½- —
non-ret. dms., l.c.l., frt. alld. E. of Denver lb. .40½- —
tanks, frt. alld. E. of Denver lb. .37 - —

ACIDS

Acid quotations are listed individually. For example, prices on Acid, cresylic, may be found in the C's under Cresylic acid.

Aconite root, bls. ..... lb. .50 - .55
Acrolein, tech., dms., c.l., works lb. .36 - —
dms., l.c.l., works ..... lb. .36¾ - —
tanks, works ..... lb. .31 - —
Acrylamide, dms., t.l., f.o.b. works. lb. .58 - —
dms., l.t.l., same basis ..... lb. .60 - —
Acrylic acid, glacial, dms., c.l., t.l., dlvd lb. .42½- —
dms., l.c.l., l.t.l., dlvd ..... lb. .43½- —
tanks, dlvd. ..... lb. .40 - —
tech., esterification, dms., t.l., frt. prepaid lb. .41½- —
tanks, same basis ..... lb. .39 - —
tech., polymerization, dms., t.l., f.o.b. shipping point lb. .42½- —
tanks, same basis ..... lb. .40 - —
Acrylonitrile, dms., c.l., t.l., frt. equald lb. .26 - —
dms., l.c.l., l.t.l., frt. alld ..... lb. .27 - —
tanks, frt. equald ..... lb. .23 - —

Abies Siberica Oil—Ammonium Bicarbonate

Adeps lanae (see lanolin).
Adipic acid, bgs., c.l., dlvd ..... lb. .32¼- —
bgs., l.c.l., dlvd ..... lb. .35 - —
Agar, USP, Kobe No. 1, strip, bls. lb. 2.75 - 3.00
powd., 30 mesh., fib., dms lb. 2.40 - —
dl-Alanine, dms., 100-lbs. or more, f.o.b. works lb. 5.25 - —
dms., 1-99 lbs., same basis ... lb. 10.00 - —
Aldol, 95%, dms., l.c.l., works lb. .28 - —
Aldrin, tech., fib. dms., c.l., t.l. dlvd lb. .99 - —
fib. dms., l.c.l., dlvd ..... lb. 1.04 - —

ALCOHOLS

Alcohol quotations are listed individually. For example, prices on Alcohol, furfuryl, may be found in the F's under Furfuryl alcohol.

Aletris root, bgs ..... lb. 1.50 - 1.75
Algin (see Sodium alginate)
Alizarin (see 1,2-Dihydroxy anthraquinone).
Alkali blue dry, 250-lb. bbls., dlvd. E. of Rockies lb. 2.38 - —
Alkali blue, toner, litho flushed, 125-lb. bbls., same basis, lb. 1.35 - —
Alkali blue prices 1c. higher W. of Rockies.
Allethrin, 90%, dms., frt. alld lb. 28.80 -28.90
Soln., 20%, dms., 200-2,000 lb. lots, frt. alld. lb. 6.50 - 6.55
2½% dms. frt. alld. ..... lb. .95 - 1.10
Allspice oil (see Pimento oil).
Allyl alcohol, dms., c.l. dlvd ..... lb. .32½- —
dms., l.c.l., dlvd ..... lb. .34 - —
tanks, dlvd. ..... lb. .30 - —
Allyl bromide 55-lb. cbys. 5,005 lbs. or more, works lb. 1.47 - —
55-lb. cbys., 1,045 to 4,950 lbs., works lb. 1.52 - —
55-lb. cbys., 55 to 990 lbs. works, lb. 1.57 - —
Allyl chloride, dms., c.l., dlvd ..... lb. .17½- —
dms., l.c.l., dlvd ..... lb. .19 - —
tanks, dlvd ..... lb. .15 - —
Allyl isothiocyanate (see Mustard Oil, syn.).
Almond oil, artif., bitter (see Benzaldehyde)
Almond oil, nat., bitter, f.p.a., bots. lb. 2.75 - 3.45
NF, bots. ..... lb. 3.00 - 3.30
sweet, USP, cns., dms ..... lb. .70 - 1.30

Abbreviations

Used in OPD Market Quotations

alld.	allowed	distr.	distributor	No.	number
amorph.	amorphous	djns.	demijohns	nom.	nominal
AMP	American melting point	divd.	delivered	o-	ortho
anhyd.	anhydrous	dms.	drums	ord.	ordinary
AOAC	Association of Official Agricultural Chemists	dom.	domestic	oz.	ounce
		E.	east	p-	para
a.p.a.	available phosphoric acid	e.p.	end point	Pac.	Pacific
approx.	approximately	equald.	equalized	pf.	proof
artif.	artificial	exp.	expressed	phos.	phosphate
ASTM	American Society for Testing Materials	Ext.	external	photo.	photographic
		F.	fahrenheit	pkgs.	packages
Atl.	Atlantic	ferment.	fermentation	powd.	powdered
Be.	Baume	f.f.a.	free fatty acid	precip.	precipitated
bbls.	barrels	f.f.c.	free from chlorine	prod.	producer
bgs.	bags	fib.	fiber	pt.	point
bls.	bales	f.o.b.	free on board	pulv.	pulverized
bots.	bottles	f.p.a.	free of prussic acid	purif.	purified
b.p.	boiling point	frt.	freight	redist.	redistilled
b.p.l.	bone phosphate of lime	gal.	gallon	refd.	refined
b.r.	boiling range	gran.	granular	refy.	refinery
bxs.	boxes	grd.	ground	reg.	regular.
C.	centigrade	i.&a.	iron and aluminum	resub.	resublimed
cbys.	carboys	i.b.p.	initial boiling point	ret.	returnable
CD	completely denatured	imp.	imported	SD	specially denatured
c.i.f.	cost, insurance, freight	incl.	included	s.d.	single distilled
cks.	casks	indust.	industrial	S.E.	southeast
c.l.	carlots	kgs.	kegs	sec.	secondary
cns.	cans	l-	laevo	secs.	seconds
coml.	commercial	lacq.	lacquer	s.g.	specific gravity
conc.	concentrated	lb.	pound	shipt.	shipment
CP	chemically pure	l.c.l.	less carlots	soln.	solution
cps.	centipoises	l.t.l.	less truckload	s.u.	standard unit
cryst.	crystalline	liq.	liquid	syn.	synthetic
cs.	cases	mfrs.	manufacturers	tanks.	railroad tankcars
ctns.	cartons	m-	meta	tech.	technical
cyls.	cylinders	m.a.p.	mixed aniline point	tert-	tertiary
d-	dextro	min.	minimum	t.l.	truckloads
dbl.	double	m.p.	melting point	t.w.	tankwagons
denat.	denatufed	N-	nitrogen	USP	U. S. Pharmacopoeia
dest-dist.	destructively—distilled	n-	normal	vis.	viscosity
dl-	dextro-laevo	nat.	natural	VM&P	varnish makers & painters
dist.	distilled	neut.	neutral	W.	west
		NF	National Formulary	whse.	warehouse
		NNR	New and Nonofficial Remedies	w.w.	water-white

A unit-ton is 2,000 pounds of 1 percent of the basic constituent or other standard of the material. The percentage figure of the basic constituent multiplied by the price figure shown gives the price of 2,000 pounds of the material.

Aloe, Cape, cs. ..... lb. .30 - .38
powd., cs. ..... lb. .60 - .65
Curacao, kgs. ..... lb. .60 - .70
powd., kgs. ..... lb. .80 - —
Aloin, USP, bbls., dms., kgs. ... lb. 3.25 - 3.75
Alphanaphthol (see a-Naphthol).
Alphanaphthylamine (see a-Naphthylamine).
Alphanitronaphthalene (see a-Nitronaphthalene).
Alphapicoline (see a-Picoline).
Alphaterpinol (see a-Terpinol).
Alphatocopherol (see a-Tocopherol).
Alum ammonium, gran., bgs., works. 100 lbs. 4.30 - —
Lump, dms., works ..... 100 lbs. 5.05 - —
Powd., dms., works ..... 100 lbs. 5.20 - —
USP, burnt., dms ..... lb. .20 - .21
hydrous, dms. ..... lb. .07¾- .08
Alum potassium, gran., bgs., works. 100 lbs. 4.55 - —
Lump, dms., works ..... 100 lbs. 5.30 - —
Powd., dms., works ..... 100 lbs. 5.45 - —
USP, burnt., dms ..... lb. .20 - .21
USP, hydrous, dms ..... lb. .07¾- .08
Alum, potash-chrome, dms ..... lb. .17 - —
Alumina, calcined, bgs., c.l., works. lb. .05¼- —
bgs., l.c.l., works ..... lb. .05½- .08¼
Aluminum acetate, basic soln., 24%, bbls., l.c.l, works lb. .14 - —
Aluminum chloride, coml., anhyd., dms., c.l., works, frt. equald lb. .16 - —
dms., l.c.l., works ..... lb. .16½- —
cryst., dms., c.l., works 100 lbs. 21.00 - —
dms., l.c.l., works ..... 100 lbs. 21.50 - —
Soln., 32° cbys., c.l., works .... lb. .0495- —
cbys., l.c.l., works ..... lb. .0570- .1093
tanks, works ..... 100 lbs. 3.95 - —
NF, gran., dms., works ..... lb. .31 - .32
Aluminum fluoride, tech., anhyd., bgs., c.l., works lb. .16¼- —
bgs., l.c.l., works ..... lb. .17¼- .19¼
bulk, c.l., basis 80% ..... lb. .14½- —
Aluminum fluoride in fib. dms. 0.35c per lb. higher.
Aluminum formate, basic soln., containers extra, c.l., works. 100 lbs. 11.00 - —
containers extra, l.c.l., works. 100 lbs. 11.50 - —
Aluminum hydrate, heavy, bgs., c.l., frt. equald lb. .0365- —
bgs., 20,000-40,000 lb. lots, same basis lb. .039 - —
bgs., 2,000-20,000 lb. lots, same basis lb. .049 - —
bulk, c.l., same basis ..... lb. .03¼- —
Aluminum hydroxide, dried, USP XV, fib. dms., works lb. .82½- —
fib. dms., contract, works lb. .79½- —
Aluminum hydroxide, gel, pharmaceutical, 14-15% Al_2O_3, fib dms., works lb. .22 - —
9-9½% Al_2O_3, fib. dms., works. lb. .19 - —
fib. dms., contract, works lb. .18 - —
Aluminum hydroxide, tech., powd., (see Aluminum hydrate).
Aluminum metal, 99½% + 30-lb. ingots, 10,000-lb. lots, frt. alld lb. .2810- —
50-lb. pigs, 10,000-lb. lots, frt alld. lb. .26 - —
Aluminum oxide, amorphous (see Alumina, calcined).
Aluminum paste, lining, extra-fine, dms lb. .71 - —
Standard grade, dms ..... lb. .48½- —
Aluminum powder, lining, extra-fine, dms lb. 1.13 - —
Standard grade, dms ..... lb. .83 - —
Aluminum paste and powder prices are f.o.b. shipping point. Add 1c. per lb. for 100-lb. dm., 1½c. per lb. for 50-lb. dm., 3c. per lb. for 10 lb. can and 5c. to 12c. per lb. for smaller containers. Deduct 1c. per lb. for single shipment of 400 to 1,499 lbs. 2c. for 1,500 to 4,999 lbs., 3c. for 5,000 to 29,999 lbs. and 4c. for 30,000 lbs. or more. Where destination is within the continental U. S., a deduction equivalent to the lowest available common carrier transportation rate will be made from seller's invoice on orders of 200 lbs. or more.
Aluminum resinate, precip., 3.4% Al, dms lb. .40¼- —
Aluminum stearate, dibasic, ctns., c.l. lb. .39 - —
ctns., l.c.l. ..... lb. .40 - .44
Monobasic, ctns., c.l. ..... lb. .39 - —
ctns., l.c.l. ..... lb. .40 - .44
Tribasic, ctns., c.l. ..... lb. .39 - —
ctns., l.c.l. ..... lb. .40 - .44
Aluminum sulfate, coml., grd., bgs. c.l., works, frt. equald ton. 41.00 - —
bulk, c.l., same basis ..... ton. 40.00 - —
lump, bgs., c.l., same basis .. ton. 44.00 - —
iron-free, bgs., c.l., works, frt. equald .. 100 lbs. 3.80 - —
bgs., l.c.l., works, frt. equald. 100 lbs. 4.30 - 8.30
USP, gran., 400-lb. dm., works. lb. .30 - —
USP, powd., dms., works ..... lb. .27 - —
Aluminum sulfate prices $1 per ton higher in the South.
Aluminum trihydrate, heavy (see Aluminum hydrate, heavy).
Ambergris, gray, bots ..... oz. 6.50 -10.00
P-Aminoacetanilide, tech., paste, dms., frt. alld. lb. 1.57 - —
Aminoacetic acid, NF, bbls., frt. adjusted lb. 1.35 - 1.60
Aminoazotoluene base, bbls., 100% basis lb. 1.03 - 1.18
p-Aminobenzoic acid, tech., dry, dms., works lb. 1.72 - —
2-Amino-4-chlorophenol, tech., solid, dms., frt. alld lb. 8.10 - —
p-Aminodiphenylamine, tech., solid, dms., frt. alld. lb. 3.00 - —
Aminoethyl ethanolamine, dms., c.l., dlvd. lb. .475 - —
dms., l.c.l., dlvd ..... lb. .49 - —
tanks, dlvd. ..... lb. .45 - —
2-Amino-2-methyl-1-propanol, dms., c.l., frt. alld. lb. .44 - —
dms., l.c.l., frt. alld ..... lb. .45 - —
tanks, frt. alld. ..... lb. .42 - —
m-Aminophenol, dist., dms., ton lots. lb. 2.05 - —
dms., smaller lots. ..... lbs. 2.50 - —
p-Aminophenol, dms., frt. alld. lb. 1.15 - —
Aminophylline, USP, 100-lb. dm., frt. alld lb. 3.25 - —
p-Aminosalicylic acid, dms., 100 lbs. or more, frt. adjusted lb. 3.40 - —
Ammonia, anhyd., fertilizer, tanks, works, frt. equald. E. of Rockies .. ton. 84.00 - —
refrigeration, tanks, works, frt. equald. E. of Rockies .. ton. 94.50 - —
Aqueous, 29.4%, tanks, works, anhyd. basis, E. of Rockies. ton. 95.00 - —
Ammoniacal liquor (see Ammonia, aqueous).
Ammoniac, sal., gray, bgs., c.l., works, frt. equald .. 100 lbs. 8.25 - —
bgs., l.c.l., same basis .. 100 lbs. 8.65 -12.65
Ammoniac, sal., white (see Ammonium chloride, tech.)
Ammonium acetate, purif., dms lb. .40 - —
Ammonium benzoate, USP, fib. dms. ton lots, works lb. 1.00 - —
fib dms. 1,000-lb. lots, works. lb. 1.05 - —
Ammonium biborate, gran., dms., c.l., works .. ton. 325 - —
dms., ton lots, ex whse. 100 lbs. 20.40 - —
dms., smaller lots, ex whse. 100 lbs. 21.15 - —
Ammonium bicarbonate, dom., dms., c.l., works .. 100 lbs. 7.00 - —
dms., l.c.l., works ..... 100 lbs. 9.00 - —

Ammonium bichromate, dms., works	lb.	.42	.43
Ammonium bifluoride, dms., dlvd	lb.	.2145	.2245
Ammonium bromide, NF, gran., dms., c.l., t.l., frt. equald	lb.	.44	—
dms., l.c.l., same basis	lb.	.46	—
Ammonium carbonate, USP, lump, dms., c.l.	lb.	.15½	—
Ammonium chloride, white, tech., fine gran., bgs., c.l., works	100 lbs.	6.00	—
bgs., l.c.l., works	100 lbs.	8.00	8.45
USP, gran., 250-lb. dm	lb.	.17½	—
Ammonium citrate, dibasic, 250-lb. dm, f.o.b. works	lb.	.77	—
Ammonium dichromate (see Ammonium bichromate)			
Ammonium fluoride (see Ammonium bifluoride)			
Ammonium gluconate, tech., 200-lb. dm., f.o.b. works E	lb.	.45	—
Ammonium hydroxide (see Ammonia aqeous).			
Ammonium iodide, NF, 25-lb. jar, f.o.b. works	lb.	4.26	—
Ammonium lauryl sulfate, dms., c.l., frt. alld	lb.	.20½	—
dms., l.t.l., frt. alld	lb	.21½	—
tanks, frt. alld	lb.	.19½	—
Ammonium lignin sulfonate, bgs., c.l., works	100 lbs.	3.25	—
bgs., l.c.l., works	100 lbs.	3.40	3.65
Ammonium linoleate, 80%, dms., works	lb.	.50	.55
Ammonium molybdate, CP, cryst., 400 lb dms., 15,000-lbs. works	lb.	1.22	—
400-lb dms., 2,000-lb. contracts, works	lb.	1.23	—
400-lb. dms., works	lb.	1.24	—
Ammonium nitrate, dom., fertilizer grade, 33.5% N, bgs., f.o.b. works	ton.	64.00	—
with dolomite, 20.5% N, bgs., c.l., Hopewell, Va	ton.	48.00	—
Imp., Canadian, 33.5% N, eastern, bgs., c.l., ship't point, frt. equald to $3 ton base price	ton.	54.00	—
Ammonium oxalate, tech., fine gran., 250-lb. dm., f.o.b. works E	lb.	.28½	—
Tech., powd., 200-lb. dm., same basis	lb.	.28½	—
Ammonium pentaborate, gran., bgs., c.l., works	ton.	193.00	—
bgs., ton lots, ex whse	100 lbs.	14.23	—
bgs., smaller lots, ex whse	100 lbs.	15.48	17.48
Ammonium pentaborate powder $10 per ton higher in bags.			
Ammonium persulfate, tech., dms., 10-ton lots or more, works	lb.	.18	—
dms., smaller lots, works	lb.	.20	.23
Ammonium phosphate, comi., bgs., c.l., works, frt. equald	lb.	.09¼	—
bgs., l.c.l., same basis	lb.	.10	—
Dibasic, NF, V, bbls., dms	lb.	.46	—
Dibasic, tech., bgs., c.l., works, frt. alld	lb.	.09¼	—
Ammonium silicofluoride, dms., works	lb.	.12¼	.13¼
Ammonium sulfamate, bgs., c.l., t.l., works	lb.	.19	—
bgs., l.c.l., works	lb.	.20½	.27
Ammonium sulfate, standard granular, bulk, f.o.b. works, base price	ton.	32.00	—
Ammonium sulfate, standard, gran., purif., c.l., 100-lb. bgs., f.o.b. works	lb.	.08½	—
Large granular, bulk, c.l., works	ton.	35.00	—
bgs., c.l., works	ton.	40.00	—
Tech., bulk, c.l., t.l., works	ton.	52.00	—
bgs., c.l., t.l., works	ton.	56.00	—
bgs., l.c.l., l.t.l., works	100 lbs.	3.20	5.20
Ammonium sulfide, liq., 40-44%, tanks, frt. equald., 100% basis.	ton.	160.00	—
Ammonium sulfocyanide, tech. (see Ammonium thiocyanate).			
Ammonium thiocyanate, tech., cryst., dms., c.l., works	lb.	.20	—
dms., l.c.l., works	lb.	.22	.26
Tech., soln., 50%, tanks, frt. equald., basis ammonium thiocyanate content	lb.	.17¼	—
Ammonium thioglycolate, coml., 55-gal. dms., ton lots, 100% basis	lb	1.15	—
d-Amphetamine hydrochloride, monobasic, dms.	lb.	17.50	23.50
dl-Amphetamine hydrochloride, dibasic, dms	lb.	4.50	6.00
d-Amphetamine phosphate, fib. dms., 100-lb. lots	lb.	15.00	—
dl-Amphetamine phosphate, dms.	lb.	4.20	5.60
d-Amphetamine sulfate, fib. dms.	lb.	15.00	17.00
dl-Amphetamine sulfate, fib. dms.,	lb.	4.20	5.60
Amyl acetate, ex fusel oil, tech., dist., from 125° to 150°C., dms., c.l., frt. alld. E. of Rockies	lb.	.18½	.19
dms., l.c.l., same basis	lb.	.20	.20½
tanks, same basis	lb.	.16	.16½
Amyl acetate, ex pentane, reg., dms., c.l., dlvd	lb.	.19	—
dms., l.c.l., dlvd.	lb.	.21½	—
tanks, dlvd.	lb.	.16½	—
tech., dms., c.l., dlvd.	lb.	.17	—
dms., l.c.l., dlvd.	lb.	.18½	—
tanks, dlvd.	lb.	.14½	—
Amyl acetate, syn., oxo process, dms., c.l., dlvd	lb.	.19	—
dms., c.l., dlvd.	lb.	.20½	—
tanks, dlvd.	lb.	.16½	—
Amyl alcohol, ex fusel oil (see Fusel oil refd).			
Amyl alcohol, ferment, refd., 128°-132°C., dms., l.c.l., dlvd	lb.	.43½	—
refd., ACS grade, dms., l.c.l., dlvd	lb.	.45½	—
ex pentane, mixed amyls, dms., c.l., frt. alld	lb.	.19	—
dms., l.c.l., frt. alld	lb.	.20½	—
tanks, frt. alld.	lb.	.16½	—
Amyl alcohol, primary, dms., c.l., frt. alld	lb.	.20¼	—
dms., l.c.l., frt. alld	lb.	.21¾	—
tanks, frt. alld	lb.	.17¾	—
Sec-synthetic, dms., c.l., works, frt. alld	lb.	.19	—
dms., l.c.l., same basis	lb.	.20½	—
tanks, same basis	lb.	.17	—
Tert-synthetic, dms., c.l., frt. alld. E	lb.	.17	—
dms., l.c.l., frt. alld. E.	lb.	.18½	—
tanks, frt. alld. E.	lb.	.14½	—
Amyl alcohol, 1-pentanol (syn. normal), dms., c.l., works	lb.	.41½	—
dms., l.c.l., works	lb.	.43	—
tanks, works	lb.	.39½	—
2-pentanol, dms., c.l., works	lb.	.63	—
dms., l.c.l., works	lb.	.70	—
tanks, works	lb.	.60	—
Amyl n-butyrate, dms.	lb.	1.00	1.25
Amyl cinnamic aldehyde, dms	lb.	1.70	2.20
p-tert Amyl phenol, dms., c.l., works.	lb.	.26¾	—
dms., l.c.l., works	lb.	.27¾	—
Amyl salicylate, cns., dms.	lb.	.71	—
Amyris oil, dms.	lb.	1.55	—
Anethol, tech., dms.	lb.	.80	.92
USP, cns., dms.	lb.	1.05	—
Angelica root, bls	lb.	.85	.90
Angelica root oil, bots	lb.	120.00	140.00
Angelica seed oil, bots	lb.	120.00	130.00
Aniline dms., c.l., frt. alld	lb.	.20	—
dms., l.c.l., frt. alld.	lb.	.21	—
tanks, frt. alld.	lb.	.18	—
Aniline oil (see Aniline).			
Aniline salt, dms., c.l., t.l., 20,000 lbs. min., frt. alld	lb.	.33	—
dms., l.c.l., same basis	lb.	.35	—
Anise oil, USP, dms.	lb.	1.75	3.00
Anise seed, Mexican, bgs	lb.	.24	—
Spanish, bgs.	lb.	.24	—
Anisic aldehyde, dms	lb.	1.50	2.20
o-Anisidine, dms., c.l., frt. alld	lb.	.80	—
dms., l.c.l., same basis	lb.	.82	—
tanks, same basis	lb.	.78	—
p-Anisidine, dms., works	lb.	.97	—
Anthracene, 90-95%, dms., c.l., t.l. f.o.b., works	lb.	.42½	—
dms., l.c.l., minimum shipment 1,000 lbs., same basis	lb.	.45	—
Anthranilic acid, 99%, 150-lb. dms., dlvd	lb.	1.15	—
Anthraquinone, 99.5%, bbls., c.l., frt alld	lb.	.83	—
bbls., l.c.l., same basis	lb.	.86	—
Electrical grade, bbls., l.c.l., same basis	lb.	1.10	—
Antimony butter (see Antimony trichloride).			
Antimony metal, bulk, c.l., mines.	lb.	.29	—
cs., c.l., mines	lb.	.29½	—
Antimony oxide, bgs., c.l., frt. alld.	lb.	.26½	—
bgs., l.c.l., frt. alld.	lb.	.28	—
Prices of antimony oxide are 2% higher west of the Rockies.			
Antimony sulfide, approx. 65%, bgs., 10,000-lb. lots, dlvd	lb.	.23	—
bgs., smaller lots, dlvd	lb.	.24	.26
Antimony trichloride, anhyd., solid, pails, c.l., works	lb.	.41	—
pails, l.c.l., works	lb.	.43	—
Antimony-potassium tartrate, tech., powd., 250-lb., dm., f.o.b. works, E	lb.	.69½	—
USP, powd., 250-lb. dm., same basis	lb.	.74½	—
Apomorphine hydrochloride, USP, bots., 25-oz. lots	oz.	35.60	—
Apricot kernel oil, USP, dms.	lb.	.55	.70
Arabic gum, amber sorts, 10 bgs.	lb.	.27	—
USP, powd., bbls.	lb.	.31	.34
Areca nuts, powd., bbls.	lb.	.13	—
Arecoline hydrobromide, NF, bots., tins, 100 oz. or more	oz.	4.00	—
l-Arginine, free base, dms., 10-kilo lots or more	kilo.	90.00	—
l-Arginine glutamate, dms., 10-kilo lots or more	kilo.	60.00	—
l-Arginine monohydrochloride, dms., 10-kilo lots or more	kilo.	60.00	—
Arnica flowers (true Montana), bls.	lb.	.75	—
Aromatic petroleum solvents (see Solvent Naphtha, petroleum, aromatic).			
Arsenic, crude (95%), bulk, c.l., works	lb.	.016	—
bbls., c.l., works	lb.	.0.31	—
Arsenic trioxide, NF, powd., dms., 300-lbs., f.o.b. works	lb.	.48	—
Arsenic, white, powd., bbls., c.l., works	lb.	.04½	—
bbls., l.c.l., works	lb.	.06½	.07½
Arsenous acid, tech. (see Arsenic, white).			
Arsenous acid, USP (see Arsenic trioxide).			
Arylid maroons, deep shades, bbls.	lb.	3.70	—
Light shades, bbls.	lb.	2.85	—
Asafetida gum, cns	lb.	.36	.40
Powd., bbls., dms	lb.	.75	.80
Asbestine (see Talc, fibrous, New York).			
Asbestos, Canadian crude 6D, c.l. (30 tons), mines	ton.	86.00	—
7D, c.l. (30 tons), mines	ton.	75.00	—
7F, c.l. (30 tons), mines	ton.	71.00	—
7H, c.l. (30 tons), mines	ton.	61.00	—
7K, c.l. (30 tons), mines	ton.	50.00	—
7M, c.l. (30 tons), mines	ton.	44.00	—
7R, c.l. (30 tons), mines	ton.	43.00	—
7RF, c.l. (30 tons), mines	ton.	44.00	—
7T, c.l. (30 tons), mines	ton.	41.00	—
7TF, c.l. (30 tons), mines	ton.	44.00	—
Asbestos prices are in Canadian funds; l.c.l. lots $4 per ton higher.			
Ascorbic acid, USP, dms., 100-kilos.	kilo.	7.35	—
dms., less than 100-kilos	kilo.	7.75	—
Ash, black (see Barium sulfide).			
Asphalt, gilsonite, black jet, bgs., c.l., mines	ton.	43.00	—
ex-whse, 5 tons or more, N. Y., N. J.	ton.	89.50	—
select, brilliant black, 340°-360°F. fusing pt., bgs., c.l., mines.	ton.	46.00	—
270°-295°F. fusing pt., bgs., c.l., mines	ton.	43.00	—
Asphalt, petroleum, cut-back, tanks, tankwagon, refy	gal.	.09½	—
emulsion, tanks, tankwagon, refy.	gal.	.09½	—
steam-refd., 50-80 penetration, tanks, tankwagon, refy.	ton.	21.00	—
85-300 penetration, tanks, tankwagon, refy	ton.	20.00	—

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Aspirin (see Acetylsalicylic Acid).
Atropine, NF, tins ..... oz. 5.75 - 7.50
Atropine sulfate USP, bots ..... oz. 5.25 - 5.75
Azelaic acid, bgs., c.l., dlvd. .... lb. .40 - —
bgs., ton lots, same basis ..... lb. .41 - —

B

Bacitracin, bulk, 1,000,000,000 or more units 50,000 units. .65 - —
less than 1,000,000,000 units. 50,000 units. .70 - —
Balm of Gilead buds, dried, bgs lb. 1.25 - 1.35
Barberry root bark, bgs lb. 1.00 - 1.10
Barbital, NF, 100-lb. dms., f.o.b. works lb. 4.50 - —
Barbital sodium, NF, 100-lb. dms. lb. 4.75 - —
Barium carbonate, precip., bgs., c.l., works ton.111.50 - —
bgs., smaller lots, works ton.126.50 - —
Barium chlorate, dms., works lb. .32 - .41
Barium chloride anhyd., bgs., c.l., works ton.176.00 - —
bgs., l.c.l., works ton.196.00 - —
NF, cryst., dms., 400-lbs., works lb. .23 - —
Tech., cryst., bgs., c.l., works. 100 lbs. 7.00 - —
bgs., l.c.l., works 100 lbs. 8.00 - —
Barium chromate, bgs., frt. equald. lb. .38 - —
Barium dioxide (see Barium peroxide).
Barium hydrate, cryst., bgs., c.l., t.l., frt. equald ton.208.00 - —
bgs., l.c.l., t.l., frt. equald ton.218.00 - —
Barium monohydrate, 99%, bgs., c.l., frt. equald 100 lbs.11.25 - —
bgs., l.c.l., frt. equald 100 lbs.11.75 - —
Barium monoxide (see Barium oxide).
Barium nitrate, bbls., c.l., t.l., dlvd. lb. .16 - —
bbls., l.c.l., l.t.l., dlvd. lb. .17 - —
Barium oxide, grd., dms., c.l., t.l., frt equald ton275.00 - —
dms., l.c.l., l.t.l., frt. equald. ton.285.00 - —
Barium peroxide, dms., frt. equald. lb .20 - —
Barium stearate, ctns., c.l., frt. alld. lb. .41 - —
ctns., l.c.l, same basis lb. .42 - .46
Barium sulfate, tech. (see Barytes and blanc fixe).
Barium sulfate, X-ray, 100-lb. dm. lb. .19½- —
Barium sulfide, dms., c.l., works. ton.100.00 - —
dms., l.c.l., works ton.110.00 - —
Barytes, southern, off-color, bgs., mines ton 30.00 - —
95-75%, bgs., mines ton.30.00 - —
white, water-gro.. paper bgs., c.l., St. Louis ton.60.00 -60.25
paper bgs., ex whse., New York ton 84.85 - —
Battery acid, cbys., c.l., works E. 100 lbs. 2.35 - —
cbys, l.c.l., works, E 100 lbs. 2.65 -10.95
Bauxite, bulk, mines ton. 7.00 -10.00
Bay oil, NF, Puerto Rican, 50-55%, cns. lb. 2.40 - 2.70
55-60%, cns. lb. 2.55 - —
NF, West Indian, 50-55%, cns. dms. lb. 2.50 - —
Bayberry wax, bgs. lb. .65 - .70
Beeswax, crude, African, bgs. lb. .52 - .54
Brazilian, bgs. lb. .56 - .57
Central American, bgs. lb. .53 - —
Chilean, bgs. lb. .56 - .57
Refd., USP, bleached white, bricks, 100-lb. ctns. lb. .69 - .71
white, slabs, 100-lb. ctns. lb. .68 - .70
yellow, bricks, 100-lb. ctns. lb. .59 - .61
yellow, slabs, 100-lb. ctns. lb. .58 - .60
Belladonna leaf, bls. lb. .24 - .26
Belladonna root, bls. lb. .28 - .35
Bentonite, dom. 200 mesh, bgs., c.l., mines ton.14.00 - —
Imp. Italian, white, high gel., bgs., 5-ton lots, ex whse ton.95.20 - —
bgs., 1-ton lots, ex whse ton.99.00 - —
Imp. Italian, white, low gel., bgs., 5-ton lots, ex whse ton.93.40 - —
bgs., 1-ton lots, ex whse ton.97.16 - —
Benzal chloride, cbys., works lb. .44 - —
Benzaldehyde, NF, dms. lb. .80 - 1.05
Tech., dms., c.l., t.l. lb. .47 - —
dms., l.c.l. lb. .48 - —
Benzene, pure or nitration, tanks, works:
Bethlehem, Pa gal. .34 - —
Birmingham district gal. .34 - —
Chicago district gal. .34 - —
Cleveland district gal. .34 - —
Geneva, Utah gal. .34 - —
Houston, Tex. gal. .34 - .40
Johnstown, Pa gal. .34 - —
Benzene, pure or nitration, tanks, works:
Lorain, Ohio gal. .34 - —
Middletown, Ohio gal. .34 - —
Mennequa, Colo. gal. .34 - —
Philadelphia district gal. .34 - —
Pittsburgh district gal. .34 - —
Sparrows Point, Md. gal. .34 - —
Syracuse, N. Y. gal. .34 - —
Terre Haute, Ind. gal. .34 - —
Youngstown, Ohio gal. .34 - —
Lackawanna, N. Y. gal. .34 - —
Lone Star, Tex. gal. .34 - —
Benzene hexachloride, 25% and 99% gamma isomer (see Lindane).
Benzene hexachloride, tech., high gamma, bgs., c.l., t.l., consignment, dlvd. gamma-unit. .0075- —
bgs., c.l., t.l., direct sale, f.o.b. works gamma-unit. .0065- —
Tech., low gamma, bgs., c.l., t.l., consignment, dlvd. gamma-unit. .0075- —
bgs., c.l., t.l., direct sale, f.o.b. works gamma-unit. .0056- —
Benzidine hydrochloride, bbls., c.l., frt. alld., 100% basis lb. 1.19 - —
bbls., l.c.l., same basis lb. 1.21 - —
Benzidine sulfate, tech., bbls., frt. alld., 100% basis lb. 1.21 - —
Benzidine yellow, AAA, bbls., dlvd. lb. 2.20 - —
AAOT, bbls., dlvd. lb. 2.55 - —
Lightfast, bbls., dlvd. lb. 3.40 - —
Benzocaine, dms., 100-lbs., frt. alld. lb. 3.25 - —
Benzoic acid, tech., dms., c.l., t.l., frt. alld. lb. .25 - .37
dms., l.t.l., same basis lb. .29 - .41
tanks, same basis lb. .21 - —
USP, bbls., dms., ton lots lb. .48 - —
bbls., dms., 1,000-lb lots lb. .50 - —

BENZOL

Benzol quotations, both coaltar and petroleum, may be found under Benzene.

Benzoin gum, Sumatra, cs. lb. .32 - —
Benzophenone, dms. lb. 1.40 - 1.65
Benzotriazole, tech., dms., 1,000-lb. lots, works lb. 2.25 - —
Benzotrichloride, cbys., 1,000-lb. lots or more, frt. equald lb. .21 - —
cbys., smaller lots, frt. equald lb. .23 - —
Benzoyl chloride, cbys., dms., c.l., works, frt. equald lb. .22 - —
cbys., l.c.l., same basis lb. .23 - —
tanktrucks, dlvd Metropolitan area lb. .21 - —
Benzoyl peroxide, purif., fib. dms., 50 to 1,000-lb lots, works lb. .98 1.08
Benzyl acetate, f.f.c., cns., dms lb. .54 - —
Benzyl alcohol, NF, dms. lb. .54 - —
Tech., dms., dlvd lb. .57½- .65
Benzyl benzoate, USP, 40-lb. dms lb. .64 - —
Benzyl chloride, tech., cbys., cns., c.l., works, frt equald lb. .22½- .25⅛
cbys., dms., l.c.l., same basis lb. .23½- .25⅛
tanktrucks, dlvd. Metropolitan area lb. .21 - —

A 2½c. differential is quoted on benzyl chloride in 5-gal. cbys. In steel dms. prices are ½c. lower.

Benzyl cinnamate, cns. lb 3.30 - 3.60
N-Benzyl-N,N-dimethylamine, 50 dms., frt. alld lb. 1.25 - —
12-49 dms., same basis lb. 1.35 - —
1-11 dms., same basis lb. 1.90 - —
Benzyl formate, cns. lb. 1.85 2.10
Benzyl isoeugenol, cns. lb 9.25 - —
Benzyl propionate, bots. lb 1.35 - 1.65
Benzyl salicylate, bots lb. 1.50 - 1.85
Benzylidine acetone, bots. lb. 1.75 - 1.80
Benzylidine chloride (see Benzal chloride).
Berberine bisulfate, cns lb.56.50 - —
Berberine hydrochloride, bots lb.56.50 - —
Bergamot oil, nat., NF, Italian, cns. lb.11.00 -12.00
Betagammapicoline (see b,g-Picoline).
Betahydroxynaphthoic acid (see b-Oxynaphthoic acid).
Betamethylnaphthalene (see Methylnaphthalene)
Betanaphthol (see b-Naphthol)
Betanaphthylamine (see b-Naphthoiamine).
Betaoxynaphthoic acid (see b-Oxynaphthoic acid).
Betaphenylethylamine (see b-Phenylethylamine)
BHC (see Benzene hexachloride, tech.).
Biotin, cryst., bots gram.10.00 - —
Biphenyl (see Diphenyl).
Birchtar oil, crude, cns lb. 1.50 - 1.90
Rectified, cns. lb 1.75 - 2.00
Bismuth chloride, jars lb. 5.11 - —
Bismuth hydroxide, dms lb 4.60 - 4.65
Bismuth metal, bxs., ton lots lb. 2.25 - —
Bismuth nitrate, cryst., 250-lb. dm lb 2.25 - —
Bismuth oxychloride, 25-lb. dm., f.o.b. works lb 4.42 - —
Bismuth subcarbonate, USP, 150-lb. dm lb. 3.70 - —
Bismuth subgallate, NF, 200-lb. dm., f.o.b. works lb 4.43 - —
Bismuth subiodide, fib dms lb 5.37 - —
Bismuth subnitrate, NF, 200-lb. dm., f.o.b works lb. 3.15 - —
Bismuth subsalicylate, USP, 100-lb. dm., f.o.b. works lb 4.25 - —
Bismuth trioxide, 100-lb. dms., f.o.b. works lb. 4.40 - —
Bismuth-ammonium citrate, USP, powd., jars lb. 4.22 - —
Bisphenol-A, bgs., c.l., t.l., single shipt., 70,000-lbs. or more, frt. alld lb. .29½- —
bgs., c.l., t.l., less than 70,000 lbs., same basis lb. .30 - —
bgs., l.c.l., same basis lb. .31 - —
Blackberry root bark, ols lb. .50 - .55

BLACK PIGMENTS

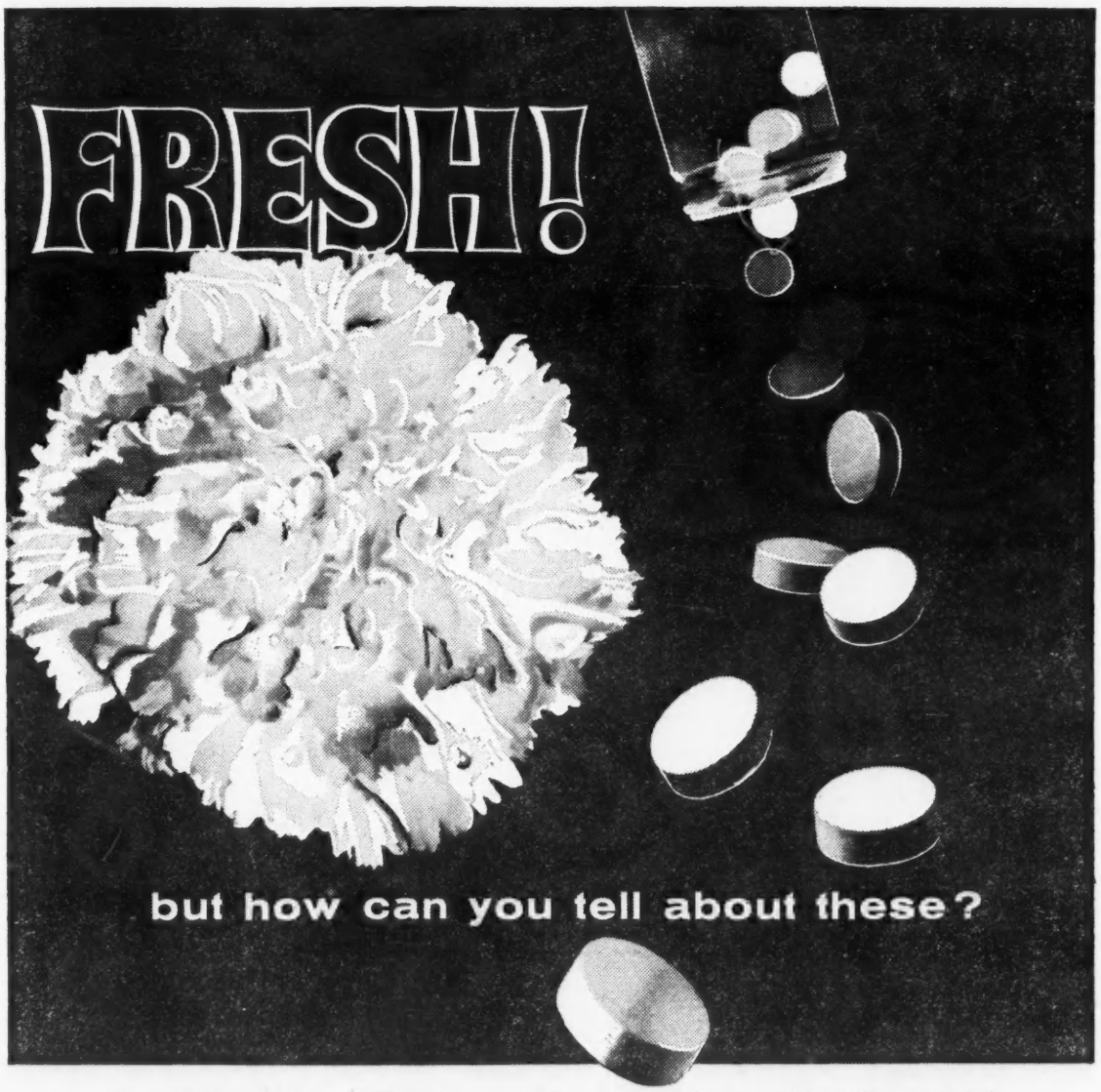
Black pigment quotations are listed individually. For example, prices on Black, acetylene, may be found in the A's under Acetylene black.

Blanc fixe, direct process, bgs., c.l., works ton.160.00 - —
bgs., l.c.l., works ton.170.00 - —
bgs., l.c.l., New York whse ton.[illegible] - —
Blood, dried, 16-16½% ammonia, bgs., New York unit-ton 5.50 - —
Bloodroot, bls. lb. .85 - .90

BLUE PIGMENTS

Blue pigment quotations are listed individually. For example, prices on Blue, ultramarine, may be found in the U's under Ultramarine blue.

Blue dyes (see Dyes)
Blue vitriol (see Copper sulfate).
Bois de rose oil, Brazilian, dms lb. 2.10 - —
Peruvian, dms. lb. 1.65 - —
BON acid maroons, pure, bbls lb 1.75 - —
Resinated, bbls. lb 1.50 - —
Bone black, dms., c.l., frt. alld lb. .1750- .2225
l.c.l., works lb. .1950- .2425
Pacific coast bone black prices 3¼c. per lb. higher.
Bonemeal, steamed, works, E ton 80.00 - —
Bone phosphate, defluorinated of lime (see Defluorinated phosphate).
Bone phosphate precip. (see Calcium phosphate, tribasic).
Borax, tech., anhyd., 99½%, bgs., c.l., works ton 92.00 - —
bgs., ton lots, ex whse, New York or Chicago 100 lbs. 7.42 - —
bgs., smaller lots, same basis 100 lbs. 8.67 -10.67
bulk, c.l., works ton.85.00 - —



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Borax, tech., gran., decahydrate, 99½%, bgs., c.l., works. ton.50.00 • —
bgs., ton lots, ex whse, New York or Chicago..100 lbs. 5.32 • —
bgs., smaller lots, same basis. 100 lbs. 6.57 - 8.57
bulk, c.l., works.....ton.43.50 • —
pentahydrate, 99½%, bgs., c.l., works..ton.64.50 • —
bgs., ton lots, ex whse, New York or Chicago..100 lbs. 6.05 • —
bgs., smaller lots, same basis..100 lbs. 7.30 - 9.30
bulk, c.l., works.....ton.58.00 • —
USP, powd., bgs., c.l., works. ton.54.00 • —
bgs., ton lots, ex whse, New York or Chicago..100 lbs. 6.43 • —
bgs., smaller lots, same basis. 100 lbs. 7.70 - 9.70
Bordeaux powder, tribasic, bgs., c.l., dlvd..lb. .24 • —
bgs., l.c.l., same basis.....lb. .26 • —
Boric acid, tech., anhyd., 99.9%, bgs., c.l., works ton.335.00 • —
bgs., ton lots, ex whse, New York or Chicago..100 lbs.19.62 • —
bgs., smaller lots, same basis. 100 lbs.20.87 -22.87
cryst., 99.9%, bgs., c.l., works. ton.163.50 • —
bgs., ton lots, ex whse, New York or Chicago..100 lbs.11.03 • —
bgs., smaller lots, same basis. 100 lbs.12.30 -14.30
Boric acid, tech., cryst., 99.9%, dms., c.l., works.....ton.188.50 • —
dms., ton lots, ex whse., New York or Chicago. 100 lbs.12.30 • —
bgs., smaller lots, same basis..100 lbs.13.03 • —

Boric acid, gran., 99.9%, bgs., c.l., works..ton.112.00 • —
bgs., ton lots, ex whse, New York or Chicago..100 lbs. 6.47 • —
bgs., smaller lots, same basis. ton.174.25 • —
dms., c.l., works.....ton.137.00 • —
dms., ton lots, ex whse, New York or Chicago..100 lbs. 9.72 • —
dms., smaller lots, same basis 100 lbs.10.47 • —
bulk, c.l., works.....ton.106.00 • —
powd., bgs., ton lots, ex whse., New York or Chicago. 100 lbs. 8.85 • —
bgs., smaller lots, same basis..100 lbs.10.10 -12.10
Boric acid, powd., dms., smaller lots, same basis 100 lbs.11.45 • —
USP boric acid $25 per ton higher in bags.
Borneol, cns.....lb. 2.75 • —
Boron trichloride, CP, 1,800-lb. cyls., works lb. 1.25 • —
100-lb. cyls., works.....lb. 1.70 • —
Boron trifluoride, gas, cyls., t.l., works lb. .70 • —
cyls., l.t.l., works.....lb. .70 • —
Brimstone (see Sulfur).
Broenner's acid, bbls.....lb. 1.53 • —
Bromine, purif., cs., c.l., t.l., dlvd. E of Rockies lb. .32 • —
cs., l.c.l., same basis.....lb. .34 - .39
ret. dms., c.l., t.l., dlvd. E. of Rockies lb. .31 • —
ret. dms., l.c.l., same basis lb. .31 - .34
tanks, same basis.....lb. .21½- —
Bromochloromethane, dms., c.l., frt. equald lb. .48 • —
dms., l.c.l., same basis.....lb. .50 • —
tanks, same basis.....lb. .47 • —

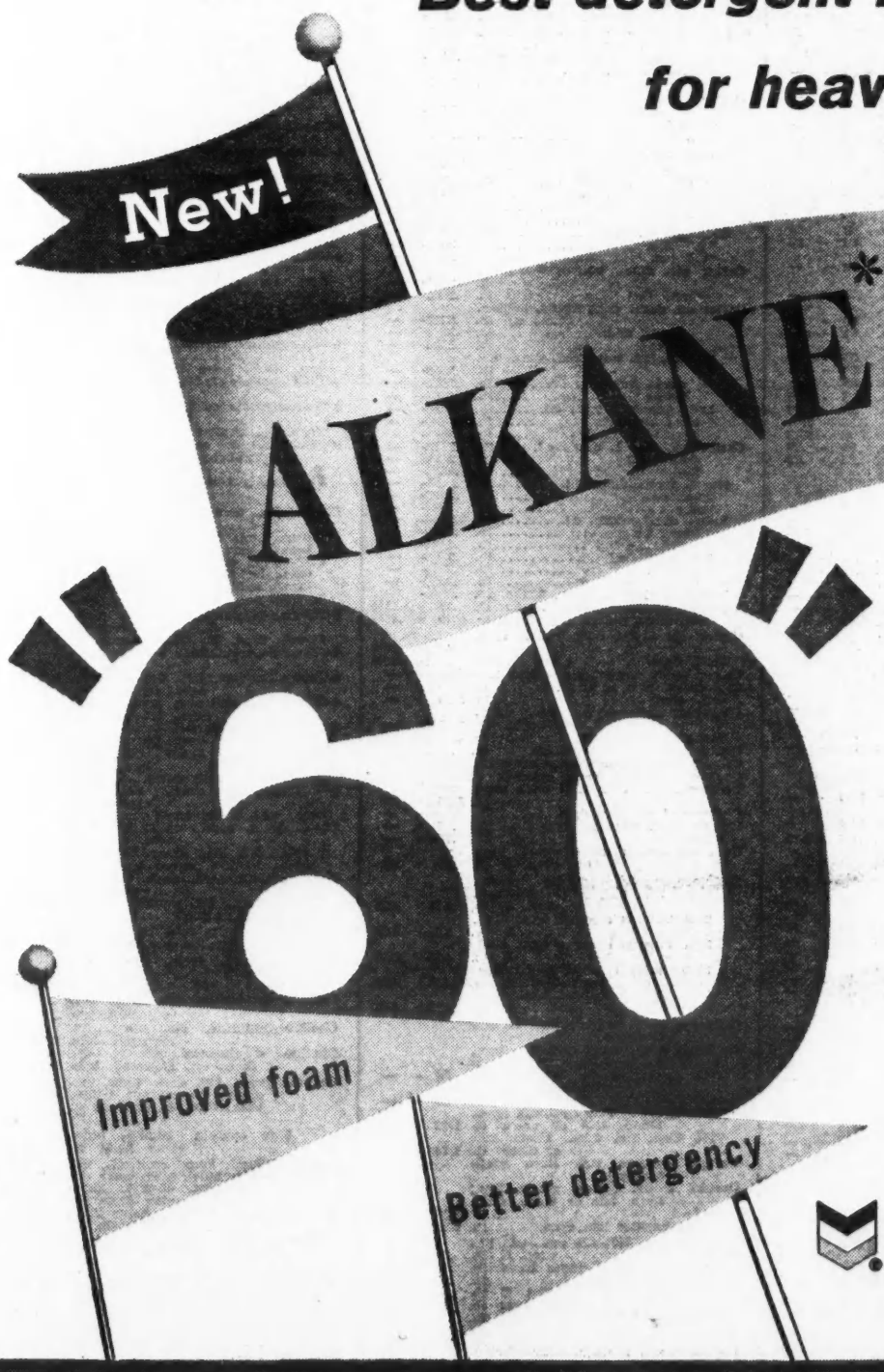
Bromoform, pharmaceutical grade, 100-lb. cbys. lb. 1.80 - 1.90
Bromstyrol, bots.....lb. 5.35 - 5.70
Brucine, cns.....oz. Nominal.
Brucine sulfate, NF, cns.....1.45 - 1.75
Buchu leaves, bbls.....lb. .65 - .70

BROWN PIGMENTS
Brown pigment quotations are listed individually. For example, prices on Brown, Iron oxide, may be found in the I's under Iron oxide brown.

Butadiene, refd. cyls., c.l., refy. lb. .21 • —
cyls., l.c.l., refy.....lb. .22 • —
tanks, dlvd.....lb. .14½- —
Butene-1, tanks, works.....lb. .0625- —
Butene-2, tanks, works.....lb. .0570- —
n-Butyl acetate, ferment, dms., c.l., frt. alld lb. .17 • —
dms., l.c.l., same basis.....lb. .18½- —
tanks, same basis.....lb. .14½- —
Syn., dms., c.l., dlvd. E lb. .17 • —
dms., l.c.l., same basis.....lb. .18½- —
tanks, same basis.....lb. .14½- —
sec-Butyl acetate, syn., dms., c.l., dlvd. E lb. .14¾- —
dms., l.c.l., same basis.....lb. .16¼- —
tanks, same basis.....lb. .12¼- —
n-Butyl acrylate, dms., c.l. or t.l., straight or mixed frt. alld. E lb. .42½- —
dms., l.t.l. same basis.....lb. .43½- —
tanks, same basis.....lb. .40 • —
Prices of n-Butyl acrylate are 1c. per lb. higher in Ariz., Calif., Idaho, Nev., Ore., Utah and Wash.

n-Butyl alcohol, ferment, dms., c.l., frt. alld..lb. .18 • —
dms., l.c.l., frt. alld.....lb. .19½- —
tanks, frt. alld.....lb. .15½- —
n-Butyl alcohol, syn., dms., c.l., dlvd. lb. .18 • —
dms., l.c.l., frt. alld.....lb. .19½- —
tanks, dlvd.....lb. .15½- —
Sec-synthetic, dms., c.l., dlvd..lb. .15 • —
dms., l.c.l., dlvd.....lb. .16½- —
tanks, dlvd.....lb. .12½- —
n-Butyl alcohol, tert-synthetic, dms., c.l., frt. alld., dlvd E..lb. .16 • —
dms., l.c.l., same basis.....lb. .17½- —
tanks, same basis.....lb. .13½- —
Butyl aldehyde (see Butyraldehyde).
Butyl chloride, dms., c.l., works..lb. .37½- —
dms., l.c.l., works.....lb. .38¼- —
n-Butyl ether, dms., c.l., works..lb. .35¼- —
dms., l.c.l., works.....lb. .36 • —
tanks, works.....lb. .33¼- —
Butyl lactate, dms., c.l., frt. alld. E. Rockies..lb. .42½- —
dms., l.c.l., same basis.....lb. .43½- —
tanks, same basis.....lb. .40 • —
Butyl laurate, dms., works.....lb. .37½- —
Butyl methacrylate, dms., c.l., t.l., works..lb. .55 • —
dms., l.c.l., works.....lb. .55½- —
Butyl oleate, refd., dms., l.c.l., works..lb. .32 • —
Butyl phenylacetate, dms.....lb. 4.50 - 4.60
Butyl phthalate (see Dibutyl phthalate).
Butyl stearate, dms., c.l., frt. alld. E. of Mississippi..lb. .27¼- —
dms., l.c.l., same basis.....lb. .28¼- —
Butylamine (see Mono-, Di- and Tributylamine).

Best detergent raw material for heavy-duty formulations



Oronite's recent product and production achievement provides the detergent industry its best commercial source for a high molecular weight alkylbenzene. And ALKANE "60" can be sulfonated to the same quality as the best dodecylbenzenes. For complete information and technical data on new ALKANE "60" contact the Oronite office nearest you.

IMPROVED FOAM—New ALKANE "60" minimizes the need for foam additives. In dishwashing foam tests results showed the ALKANE "60" based product, without a foam additive, performing as well as dodecylbenzene products which included a foam additive. And in washing machine foam tests ALKANE "60", without a foam additive, performed as well as a typical dodecylbenzene with an additive.

Formulation savings and processing advantages can be obtained by substitution of ALKANE "60" sulfonate for foam additive.

BETTER DETERGENCY—In the Terg-O-Tometer detergency test, ALKANE "60" based heavy-duty detergents proved to be better cleaning agents than dodecylbenzene derived products. The ALKANE "60" based product removed more soil at all concentrations—performed well in both soft and hard water.

PROCESSING—ALKANE "60" can be sulfonated and processed into finished detergents as easily as ALKANE "56", without manufacturing modification. Product results are comparable to the high sulfonation quality obtained with ALKANE "56".

ORONITE CHEMICAL COMPANY
A CALIFORNIA CHEMICAL COMPANY SUBSIDIARY
EXECUTIVE OFFICES • 200 Bush Street, San Francisco 20, California
SALES OFFICES • New York, Boston, Wilmington, Chicago, Cincinnati, Cleveland, Houston, Tulsa, Los Angeles, San Francisco, Seattle
FOREIGN AFFILIATE • California Chemical International, Inc., San Francisco, Geneva, Panama
6950

ORONITE will continue to supply ALKANE "56", the standard of the detergent industry

tert-Butylamine, dms., c.l., t.l., f.o.b. works lb. .47 - —
dms., l.c.l., same basis lb. .47½- —
tc., t.t., same basis lb. .45 - —
Butylated hydroxyanisole, food grade, dms., dlvd. lb. 4.75 - —
6-tert-Butyl-m-cresol (see Mono-tert-butyl-m-cresol).
Butylated hydroxytoluene (see 2,6-Di-tert-butyl-p-cresol).
1,3-Butylene glycol, dms., c.l., t.l., dlvd lb. .20½- —
dms., l.c.l., t.t.l., f.o.b. works lb. .22 - —
tanks, dlvd lb. .18 - —
p-tert-Butylphenol, bgs., c.l., dlvd., lb. .27½- —
bgs., l.c.l., works lb. .28½- —
Butyraldehyde, dms., c.l., dlvd lb. .22 - —
dms., l.c.l., dlvd. lb. .23½- —
tanks, dlvd. lb. .19½- —
Butyric acid, 99%, dms., c.l., frt. equald lb. .34 - —
dms., l.c.l., same basis lb. .34½- —
tanks, same basis lb. .32½- —
Butyric ether (see Ethyl butyrate).
Butyrolactone, dms., c.l., t.l., works. lb. .40 - —
dms., l.c.l., same basis lb. .43 - —

C

Cacao butter (see Cocoa butter).
Cadmium CP red dark shade, bbls., frt. alld. E. of Rockies lb. 5.55 - —
Light shade, bbls., same basis lb. 4.65 - —
medium shade, bbls., same basis. lb. 5.30 - —
Medium light shade, bbls., same basis lb. 4.90 - —
Orange-red shade, bbls., same basis lb. 4.30 - —
Yellow, all shades, bbls., frt. alld. E. of Rockies lb. 2.85 - —
Cadmium iodide, 25-lb fib. dms lb. 6.75 - 7.00
Cadmium metal, ingots or sticks, ton lots, cs., dlvd lb. 1.30 - —
Cadmium-mercury lithopone orange, deep shade, bbls., frt. alld E. of Rockies lb. 1.63 - —
Cadmium-mercury lithopone red, dark shade, bbls., same basis lb. 1.95 - —
Red, light shade, bbls., same basis. lb. 1.72 - —
Red, medium shade, bbls., same basis lb. 1.87 - —
Red, medium light shade, bbls., same basis lb. 1.80 - —
Red, maroon shade, bbls., same basis lb. 2.03 - —
Cadmium-selenide lithopone maroon, bbls., frt. alld E. of Rockies lb. 2.76 - —
Orange, bbls., same basis lb. 1.58 - —
Cadmium-selenide lithopone red, orange-red shade, bbls., same basis lb. 1.72 - —
Red, dark shade, bbls., same basis. lb. 2.56 - —
Red, light shade, bbls., same basis. lb. 1.88 - —
Red, medium shade, bbls., same basis lb. 2.00 - —
Red, medium-light shade, bbls., same basis lb. 2.23 - —
Cadmium-selenide, lithopone, yellow, all shades, bbls., frt. alld. E. of Rockies lb. 1.19 - —
Caffeine, NF, citrated, dms., 100-lb. lots or more lb. 2.70 - —
USP, nat., cryst., anhyd., dms., 100-lb. lots or more lb. 2.10 - —
Caffeine, USP, nat., cryst., hydrous, dms., 100-lb. lots or more. lb. 1.96 - —
USP, syn., anhyd., dms., 100-lb. lots or more lb. 2.10 - —
cryst., hydrous, dms., 100-lb. lots or more lb. 1.96 - —
Cajuput oil, native, cns. lb. 1.75 - 2.00
Redist., USP, cns lb. 1.90 - 2.10
Calamine, USP, dms. lb. .34 - —
Calamus oil, bots. lb. 12.00 - 20.00
Calciferol, cryst., 10-kilo or more lots, works gram. .54 - —
1-10 kilo lots gram. .55 - —
Calciferol, in edible oil (see Viosterol).
Calcium p-aminosalicylate trihydrate, fib. dms., 100 lbs. or more, frt. adjusted lb. 3.10 - —
Calcium arsenate, dealers, bgs., c.l., frt. alld lb. .09 - .09¼
bgs., l.c.l., same basis lb. .10 - .10½
Calcium bromide, NF, jars, 100 lbs. or more lb. .97 - —
Calcium carbide, standard generator size, 600-lb. dms., c.l., dlvd ton. 149.00 - —
Calcium carbonate, nat., dry-grd., air floated, 325 mesh, bgs., c.l., works ton. 10.50 - —
Calcium carbonate, chalk, whiting, 325 mesh, bgs., c.l., works. ton. 32.00 - 34.00
water-grd., ½ to 10 microns, bgs., c.l., works ton. 30.00 - —
10 to 20 microns, bgs., c.l., works ton. 17.00 - 18.00
precip., dense, bgs., c.l., works. ton. 30.00 - 38.50
bgs., l.c.l., works ton. 45.00 - 53.50
medium, bgs. c.l., works ton. 38.00 - —
bgs., l.c.l., works ton. 48.00 - 53.00
Calcium Carbonate, surface treated, bgs., c.l., works ton. 42.00 - 44.00
bgs., l.c.l., works ton. 57.00 - 59.00
ultrafine, bgs., c.l., works ton. 117.50 - 167.50
bgs., l.c.l., works ton. 137.50 - 187.50
Calcium chloride, conc., flake or pellet 94-97%, paper bgs., c.l., works, frt. equald. ton. 39.30 - —
Flake, 77-80%, paper bgs., c.l., works, frt. equald ton. 32.00 - —
Liquor, 40%, tanks, frt. equald. ton. 12.50 - —
Powd., 77% min., paper bgs., c.l., works, frt equald ton. 37.00 - —
Purif., gran., dms. lb. .27 - —
Calcium chloride, solid, 73-75%, dms., c.l., frt. equald ton. 29.50 - —
dms., l.c.l. works. frt. equald. ton. 36.00 - 73.00
USP, gran., dms. lb. .32 - —
Calcium chromate, bgs., dlvd lb. .37 - —
Calcium cyanide dms., c.l., dlvd. E. of Rockies lb. .20 - —
dms., l.c.l., same basis lb. .24 - .55
Calcium cyclamate, 100-lb dms lb. 1.95 - —
Calcium gluconate, USP, AA grade, 100-lb dm., ton lb. 73½- —
USP, powd. 100-lb dm., ton lb. .66¼- —
Calcium hydride, lump, dms., works. lb. 2.20 - 3.00
Calcium hypochlorite, high test, gran., 45-lb. cs., dlvd. E. of Rockies cs. 23.85 - 25.60
100-lb dms. same basis dm. 33.30 - 36.55
Calcium hypophosphite, dms., 1,000-lb. lots lb. 1.28 - —
Calcium iodide, jars lb. 4.52 - —
Calcium lactate, NF, dms., f.o.b. works lb. .43 - .46
Calcium mandelate, USP, 150-lb. dm., works lb. 3.25 - —
Calcium naphthenate, liq., 4% Ca., dms., frt. equald lb. .30 - —
Calcium pantothenate, USP, jars, 1 kilo or more kilo. 35.00 - —
Calcium para-aminosalicylate (see Calcium p-aminosalicylate).
Calcium phenosulfonate, dms. lb. 1.24 - 1.25
Calcium phosphate, dibasic, USP, bgs., c.l., frt. equald. 100 lbs. 16.00 - —
Dibasic, feed grade, 18½% P, bgs., c.l., t.l., frt. equald ton. 86.00 - —
bgs., c.l., t.l., f.o.b. Texas City works ton. 80.50 - —
bgs., l.c.l., frt equald ton. 96.00 - —
Dibasic, feed grade, 21% P., bgs., c.l., t.l., frt. equald ton. 97.65 - —
bgs., l.c.l., frt. equald ton. 107.65 - —
Prices of calcium phosphate dibasic in bulk $3 per ton less than bgs., c.l., prices.
Calcium phosphate, monobasic, bgs., 10,000-lb. lots, frt. equald. 100 lbs. 7.45 - —
bgs., smaller lots, same basis. 100 lbs. 7.95 - —
Tribasic, NF, precip., bgs., c.l., works, frt. equald 100 lbs. 9.25 - —
bgs., l.c.l., frt. equald. 100 lbs. 10.00 - —
Calcium propionate, any quantity, dms., dlvd. E. of Rockies. lb. .34½- —
Prices W. of Rockies 3c. per lb. more.
Calcium phytate, bgs., 50 lbs. or more. f.o.b. warehouse N. Y. lb. .39 - —
Calcium resinate, precip., dms., ton lots, frt. alld., works lb. .40¼- —
Calcium silicate, hydrated, bgs., c.l., works lb. .06 - —
bgs., l.c.l., works lb. .06½- —
Calcium silicate paint grade (see Wollastonite).
Calcium stearate, ctns., c.l. lb. .39 - —
ctns., l.c.l. lb. .40 - .44
Calomel, NF, mild, powd., dms., 100-lbs., f.o.b. works lb. 4.32 - —
NF, mild, precip., dms., 100-lbs., f.o.b. works lb. 5.67 - —
Camphene, 46° m.p., dms. incl., c.l., works lb. .15 - —
dms. incl., l.c.l., same basis lb. .16½- —
tanks, same basis lb. .12½- —
Camphene, chlorinated, 67-69% (see Toxaphene).
Camphor, monobromated, NF, dms., kgs lb. 3.63 - 3.70
Nat., USP, powd., cs., 100-lb. lots. lb. .60 - .65
tablets, 1-oz. cs. lb. .85 - .90
Nat., USP, gran., bbls., 2,000-lb. lots lb. .59 - —
Camphor, syn., tech., 1 bbl. or more. lb. .48 - —
USP, gran., powd., bbls., 1,000-lb. lots lb. .60 - —
bbls., smaller lots lb. .61 - —
tablets, ctns., 1,000-lb. lots. lb. .85 - —
ctns. 500-lb. lots lb. .86 - —
ctns., smaller lots lb. .87 - —
Camphor oil, sassafrassy, dms. lb. .35 - .55
White, dms. lb. .26 - .50
Cananga oil, native, cns. lb. 5.00 - 6.50
Rectified, cns. lb. 7.25 - 10.00
Candelilla wax, crude, bgs. lb. .55 - .56
Refd., pure, bgs lb. .60 - .62
Powdered Candelilla wax 20 to 100 mesh, 8c. higher.
Cantharides, Chinese, cs. lb. 1.00 - —
powd., bgs. lb. 1.15 - —
Russian, bgs. lb. 2.00 - 2.15
powd., bgs. lb. 2.15 - 2.30
Capric acid, dms lb. .30¾- .33½
tanks lb. .28¼- —
Caprolactum monomer, bgs., c.l., t.l., f.o.b. works lb. .52 - —
bgs., l.c.l., t.t.l., same basis lb. .57 - —
tanks, same basis lb. .49 - —
Capryl alcohol, 85% dms., c.l., t.l., works lb. .19 - —
dms., l.t.l., same basis lb. .19½- —
tanks, frt. equald. lb. .16½- —
Sec., 92-99%, dms., c.l., f.o.b. works lb. .22 - —
dms., l.c.l., f.o.b. works lb. .23 - —
tanks, f.o.b. works lb. .19½- —
Caprylic acid, dms lb. .30¾- .33¼
tanks lb. .28¼- —
Capsicum (see Pepper red).
Capsicum oil (see Capsicum oleoresin).
Capsicum oleoresin, NF, from dom. pepper, dms lb. 4.00 - —
NF, from African pepper, dms. lb. 4.50 - —
Caraway oil, NF, dms lb. 3.15 - 3.75
Caraway seed, Danish, bgs. lb. .16 - —
Dutch, bgs. lb. .21 - —
Polish, bgs. lb. .17½- —
Carbazole, 97%, bbls, ton lots, works lb. 1.05 - —
Carbon black, channel, rubber beads, bulk, c.l., works lb. .08 - —
bgs., c.l., works lb. .08½- —
bgs., l.c.l., works lb. .16¼- —
Furnace fast extruding, bgs., c.l., works lb. .06¾- —
ctns., l.c.l., whse. lb. .13½- —
Carbon black, high abrasion, bulk, c.l., works lb. .07¼- —
bgs., c.l., works lb. .07¾- —
bgs. l.c.l., dlvd. or whse lb. .14½- —
high modulus, bgs., c.l., works. lb. .06¼- —
ctns., l.c.l., whse. lb. .13 - —
semi-reinforcing, bgs., c.l., works lb. .05¾- —
bgs., ctns., l.c.l., whse. lb. .12½- —
pigment, high color beads, ctns., c.l., works lb. .78 - —
ctns., l.c.l., dlvd. or whse lb. .87 - —
medium color, uncompressed, bgs., c.l., works lb. .14 - —
bgs., l.c.l., dlvd. or whse lb. .22½- —
Carbon dioxide, indust., wholesale, bulk, 30,000-2,999,999 lbs., dlvd. Metropolitan areas, E ton. 60.00 - 115.00
bulk, 3,000,000 lbs. or more, dlvd. Metropolitan areas, E ton. 55.00 - —
Solid, bulk, wholesale, works ton. 85.00 - —
Carbon disulfide, 55-gal. dms., c.l., works, frt. equald to competitive points lb. .071 - —
55-gal. dms., l.c.l., same basis lb. .086 - .091
5-gal. dms., 30 dms. to c.l., same basis lb. .131 - —
5-gal. dms., less than 30 dms., same basis lb. .161 - —
tanks, dlvd. lb. .0520- —
Carbon tetrachloride, CP, consumers, dms., c.l., frt. alld. lb. .12¾- —
dms., l.c.l., frt. alld. lb. .15¼- —
Tech., consumers, dms., c.l., t.l., frt. alld lb. .11¾- —
dms., l.c.l., l.t.l., frt. alld lb. .14¼- —
tanks, frt. alld lb. .10¾- .11¼
Carboxymethyl cellulose (see CMC).
Carbromal, NF, dms., 100-lb lots, works lb. 4.00 - 4.25
dms., smaller lots, works lb. 4.10 - 4.75
Cardamom oil, NF, bots. lb. 39.00 - 42.00
Cardamom seed, bleached "A" lb. 3.50 - —
Bleached "B" lb. 3.25 - —
Decorticated Alleppey, cs. lb. 2.30 - —
Guatemala, cs. lb. 3.05 - —
Green, Alleppey, bgs. lb. 2.15 - —
Ceylon, bgs. lb. 2.25 - —
Carmine No. 40, NF, bulk, 100-lb. lots or more, dlvd. lb. 16.80 - —
bulk, smaller lots, dlvd. lb. 16.90 - 17.30
Carnauba wax, chalky, bgs., ton lots lb. .72 - .73
North Country, No. 2, crude, bgs., ton lots lb. .81 - .83
refd., pure, ton lots lb. .87 - .88
North Country, No. 3, Ceara, ton lots lb. .72 - .73
North Country, No. 3, Parnahyba, ton lots lb. .73 - .74
No. 3, refd., pure, bgs., ton lots. lb. .80 - .82
No. 1, Ceara, yellow, bgs., ton lots. lb. 1.00 - 1.02
Parnahyba, yellow, bgs., ton lots lb. 1.01 - 1.03
Powdered carnauba wax, 20 to 100 mesh 8c. per lb higher.
Carotene, tech., 1,350,000 A units per gram tins, 5-10 kilo lots, dlvd gram. .20½- —
in carrot oil, 5,000,000 to 8,000,000 A units per lb., dms., works million units. .12 - —
USP, microcrystalline in oil, 400,000 A units per gram., dms., dlvd million units. .144 - —
b-Carotene, in vegetable oil, semi-solid suspension, 400,000 A units per gram. cns kilo. 57.60 - —
b-Carotene, liquid in vegetable oil, 500,000 A units per gram, cns kilo. 72.00 - —
Pure, cryst., 1,800,000 to 1,670,000 A units per gram, cns. kilo. 240.00 - —
Carvol, bots. lb. 5.00 - 5.40
Cascara sagrada bark, bulk lb. .32 - —
Casein, dom., edible, acid precip., 30 mesh., bgs., 10,000-lb. lots or more, works lb. .56 - —
edible, acid, precip., 80 mesh, bgs., 10,000-lb. lots or more, works lb. .64 - —
Imp., inedible, acid-precip., grd., Argentine, bgs., c.l., ex-dock Eastern seaports lb. .19 - .19½
Australian, bgs., c.l., same basis lb. .22¼- .22½
Cashewnut shell, liquid, treated, dms., c.l., Newark, N.J. lb. .24 - —
dms., ton lots, same basis lb. .25 - —
t.w., same basis lb. .22½- —
Cassella acid, dms., frt. alld., 100% basis lb. 1.44 - 1.75
Cassia oil, redist., USP, cns lb. 7.50 - 9.00
Cassia, Padang, "A," bls. lb. .30 - —
"B," bls. lb. .29 - —
"C," bls. lb. .28 - —
Korintje "A," bls. lb. .34 - —
"B," bls. lb. .30 - —
"C," bls. lb. .30 - —
Castor oil, dom., blown, dms., c.l. lb. .2550- —
dms., l.c.l. lb. .2650- —
Castor oil, dom., dehydrated, bodied, dms., c.l. lb. .2700- —
dms., l.c.l. lb. .2850- —
tanks lb. .2500- —
dehydrated, unbodied, dms., c.l. lb. .2500- —
dms., l.c.l. lb. .2660- —
tanks lb. .2360- —
hydrogenated, bgs., c.l. lb. .2450- —
bgs., ton lots lb. .2850- —
bgs., l.c.l., dlvd. lb. .3050- —
Castor oil, No. 1, dms., c.l. lb. .2150- —
dms., l.c.l. lb. .2300- —
tanks lb. .2000- —
No. 3, tech., dms., c.l. lb. .2125- —
dms., c.l., lb. .2225- —
tanks lb. .1925- —
Refd., deod., dms., c.l. lb. .2650- —
dms., l.c.l. lb. .2750- —
tanks lb. .2450- —
USP, dms., c.l. lb. .2350- —
dms., l.c.l. lb. .2450- —
tanks lb. .2150- —
Imported, No. 1, Braz., tanks lb. .18¾- —
Sulfonated, 50%, dms., works lb. .15 - .15½
75%, dms., works lb. .19 - .19½
Castor oil, acids, dehydrated, dms. lb. .44¼- .46¼
Split, dms. lb. .37¼- .38¼
Castor pomace, bgs., c.l., works ton. 35.00 - —
Castoreum nat., cns. lb. 5.25 - —
Syn., cns. lb. 9.00 - —
Catechol, CP, cryst., fib., dms., works lb. 2.17½- —
Resub., dms., works lb. 4.29½- —
Catnip leaves, Southern, bls. lb. Nominal.
Caustic potash (see Potash caustic).
Caustic soda (see Soda, caustic).
Cedarleaf oil, USP XIII cns., dms. lb. 3.25 - 3.50
Cedarwood oil, cns., dms. lb. .70 - —
Celery seed, French, bgs. lb. .37 - —
Indian, bgs. lb. .19 - —
Cellulose acetate, flake, powd., bgs., t.l., dlvd. E lb. .36 - .51
Cellulose acetate-butyrate, powd., 17% butyryl content, bgs., dlvd. E lb. .545 - .555
27% butyryl content, bgs., dlvd. E lb. .595 - .605
38% butyryl content, bgs., dlvd. E lb. .545 - .555
38% butyryl content, half-second, bgs., dlvd. E lb. .545 - .555
50% butyryl content, bgs., dlvd. E lb. .585 - .595
Cellulose gum, methyl (see Methyl Cellulose).
Cellulose gum, pure, high vis., bgs., 23,000-lb. lots or more works, frt alld lb. .57 - —
bgs., smaller lots, same basis lb. .59 - —
Cerium hydrate 74% CeO, fib. dms., 100-lb. lots or more lb. 1.40 - —
77% CeO, fib. dms., 100-lb. lots or more lb. 1.74 - —
Cerium oxalate (see Rare earth oxalate)
Cerium oxide, optical grade, bgs., 50-lb. lots or more, dlvd. lb. 1.85 - 1.90
bgs., smaller lots, dlvd. lb. 2.15 - —
Cetyl alcohol, NF, fib. cns., c.l., t.l., dlvd. E lb. .41¼- —
fib. cns., l.c.l., same basis lb. .43¼- —
tanks, same basis lb. .39 - —
Extra, cns., c.l., t.l., dlvd. E lb. .48½- —
fib. cns., l.c.l., same basis lb. .50½- —
tanks, same basis lb. .46 - —
Chalk (see Calcium carbonate).
Chamomile flowers, Hungarian, bls. lb. .90 - 1.00
Roman, cs. lb. 1.50 - 1.75
Chamomile oil, blue Hungarian, bots lb. 350.00 - —
Charcoal, activated, NF, fib. dms., c.l., works lb. .25 - .32
fib. dms., 5-ton lots, works lb. .26½- .32½
fib. dms., smaller lots, works lb. .27 - .50
Charcoal, black (see Charcoal, activated).
Charcoal, bone (see Bone black).
Charcoal, hardwood, lump, bulk, c.l., f.o.b. plant ton. 55.00 - —
briquets, bulk, c.l., f.o.b. plant ton. 80.00 - —
5-lb. paper bgs., c.l., same basis ton. 106.00 - —
20-lb. paper bgs., c.l., f.o.b. plant, ton. 90.00 - —
40-lb. paper bgs. c.l., same basis ton. 86.00 - —
Chenopodium oil, NF, cns lb. 4.25 - 5.00
Chicago acid, paste, bbls., frt. alld. lb. 3.21 - —
Chinawood oil (see Tung oil).
Chloral, tech., 94% min., dms., c.l., works lb. .23 - —
dms., l.c.l., works lb. .24 - —
tanks, multiple units, 5 cars, dms., l.c.l., works lb. .21 - —
Chloral hydrate, USP, jars, 1,000-lb. lots lb. 1.00 - —
jars, 500-lb. lots lb. 1.03 - —
jars, 100-lb. lots or less lb. 1.05 - —
Chlordan, agricultural, dms., c.l., frt. alld lb. .65 - —
dms., l.c.l., 5,000-10,000-lb. lots, frt. alld lb. .66 - —
Chlordan, clarified, dms., c.l., frt. alld lb. .69 - —
dms., l.c.l., 5,000-10,000-lb. lots, frt. alld lb. .70 - —
Chlorinated paraffin, 40%., dms., c.l., frt. alld lb. .15 - —
dms., l.c.l., 10 dms. or more, same basis lb. .16 - —
70%, dms., c.l., same basis lb. .18½- —
dms., l.c.l., 10 dms. or more, same basis lb. .19½- —
Chlorinated rubber, 5, 10, 20 cps., ctns., c.l., works lb. .60 - —
ctns., l.c.l., works lb. .61 - —
125 cps., ctns., c.l., works lb. .70 - —
300 cps., ctns., c.l., works lb. .80 - —
Chlorine, liq., cyls., c.l., works, frt. equald lb. .11 - —
cyls., l.c.l., Metropolitan area lb. .12½- .13¾
tanks, single units, works, frt. equald 100 lbs. 3.25 - —
tanks, multiple units, 5 cars, works, frt. equald 100 lbs. 4.15 - —
tanks, multiple units, 4 cars, same basis 100 lbs. 4.35 - —
tanks, multiple units, 2 cars, same basis 100 lbs. 5.35 - 5.85
tanks, multiple units, 1 car, same basis⅝ 100 lbs. 6.25 - 7.25
Chloroacetic acid, mono, flake, 99%, purif., dms., c.l lb. .23½- .25¼
dms., l.c.l. lb. .24½- —
tech., flake, 96-97%, dms., c.l., dms., l.c.l., frt. equald lb. .20 - —
frt. equald lb. .19 - —
2-Chloro-4-aminotoluene, tech., liq., dms., frt. alld lb. 1.03 - —
4-Chloro-2-aminotoluene, fused, bbls. lb. 1.38 - —
6-Chloro-2-aminotoluene, tech., liq., dms., frt. alld lb. .66 - —
m-Chloroaniline, dms., c.l., frt. alld. lb. .75 - —
dms., l.c.l., same basis lb. .77 - —
tanks, same basis lb. .73 - —
o-Chloroaniline, dms., c.l., frt. alld. lb. .52 - —
dms., l.c.l., same basis lb. .54 - —
tanks, same basis lb. .50 - —
p-Chloroaniline, dms., c.l., frt. alld. lb. .77 - —
dms., l.c.l., same basis lb. .79 - —
o-Chlorobenzaldehyde, dms., t.l., works lb. 1.05 - —
dms., l.t.l., same basis lb. 1.20 - —
m-Chlorobenzaldehyde, dms., l.c.l., works lb. 1.95 - —
o-Chlorobenzoic acid, fib. dms., t.l., works lb. 1.10 - —
fib. dms., smaller lots, works lb. 1.25 - —
p-Chlorobenzoic acid, fib. dms., 2,000-lbs. or more, works. lb. 2.25 - —
fib. dms., less than 2,000-lbs., same basis lb. 2.30 - —
Chloroform, tech., dms., c.l., dlvd. E lb. .18 - —
dms., l.c.l., same basis lb. .19 - —
tanks, same basis lb. .17 - —
USP, dms., c.l., dlvd. lb. .27 - —
dms., l.c.l., dlvd. lb. .30 - —
tanks, minimum 4,000 gals. dlvd. lb. .25 - —
2-Chloro-4-nitroaniline, paste, dlvd. E., 100% basis lb. .81 - —
Powd., dlvd. E., 100% basis lb. .86½- —
4-Chloro-2-nitroaniline, powd., dlvd. E lb. .86 - —
4-Chloro-2-nitrophenol, tech., paste, dms., frt. alld lb. .75 - —
4-Chloro-2-nitrotoluene, tech., solid, dms., frt. alld lb. .99 - —
6-Chloro-2-nitrotoluene, tech., solid, dms., frt. alld lb. .17 - —
o-Chlorophenol, dms., c.l., frt. equald lb. .37 - —
dms., l.c.l., same basis lb. .38 - —
p-Chlorophenol, dms., c.l., frt. equald lb. .37 - —
dms., l.c.l., same basis lb. .38 - —
Chloropicrin, coml., cyls., 180 lbs., frt. alld lb. 1.07 - —
cyls., 100 lbs., same basis lb. 1.08 - —
cyls., 50 lbs., same basis lb. 1.14 - —
Chlorosulfonic acid, dms., c.l., frt. equald lb. .0465- —
dms., l.c.l., frt. equald lb. .0515- —
tanks, frt. equald lb. .0415- —
Chlorosulfonic acid, in stainless steel dms.½c. per lb. higher
o-Chlorotoluene, tech., dms., t.l., works lb. .37 - —
dms., l.c.l., l.t.l., same basis lb. .38 - —
Choline bitartrate, fib. dms., frt. adjusted kilo 2.75 - 3.00
Choline chloride, fib. dms., frt. adjusted kilo. 2.75 - 3.00
Choline dihydrogen citrate, fib. dms., frt. adjusted kilo. 2.75 - 3.00
Chrome green, CP, dark, light, medium blue content, 1-15%, bbls., dlvd. E. of Rockies. lb. .43 - —
blue content, 16-30%, bbls., same basis lb. .44 - —
medium blue content, 41-45%, bbls., same basis lb. .44 - —
blue content, 45-49%, bbls., same basis lb. .45 - —
Chrome green, reduced color 25%, bbls., same basis lb. .20 - —
Chrome green prices 1c. higher W. of Rockies.
Chrome orange, CP, bbls., dlvd. E of Rockies lb. .35 - —
Chrome orange prices 1c. higher W. of Rockies.
Chrome yellow, CP, bbls., dlvd. E. of Rockies lb. .35 - —
Chrome yellow price 1c. higher W of Rockies.
Chromic acid, 99¾%, dms., c.l., works, frt. equald lb. .29½- —
dms., l.c.l., dlvd. N. Y. Metropolitan area lb. .30 - .31
Chromic acid, NF (see Chromium trioxide).
Chromium acetate, soln., 7½%, dms., 500-2,000-lb. lots, works. lb. .10 - —
Chromium fluoride, bbls., works lb. .51 - .52

Chromium oxide, hydrated, bbls., fib, dms., c.l., frt alld.	lb.	1.20	- —
Pure, bgs., c.l., frt. alld.	lb.	.44½	- —
bgs., l.c.l., same basis	lb.	.45¼	- —
Chromium trioxide, NF, bots.	lb.	1.15	- —
Cinchona bark, NF, red, broken, bgs.	lb.	.25	- —
NF, yellow, broken, bgs.	lb.	.35	- .40
Cinnamic acid, refd., bots.	lb.	2.50	- 3.50
Cinnamic alcohol, bots.	lb.	1.60	- 1.75
Cinnamic aldehyde, dms.	lb.	.80	- 1.00
Cinnamon, Ceylon, No. 2, bgs.	lb.	.53	- —
Ceylon, No. "0000," bgs.	lb.	.73	- —
Cinnamon bark oil, bots.	lb.	36.00	-70.00
Cinnamon leaf oil, crude, dms.	lb.	1.60	- 2.00
USP, (Cassia), cns., dms.	lb.	8.50	-13.50
Citral, CP, bots.	lb.	3.60	- 4.00
Extra, bots.	lb.	3.60	- 5.00
Syn., dms.	lb.	7.25	- 7.40
Citric acid, USP, anhyd., fine gran., bgs., dms., c.l.	lb.	.29½	- .30
bgs., dms., 10,000-lb. lots, 1 shipt.	lb.	.30	- .30½
bgs., dms., smaller lots.	lb.	.30½	- .31
Citric acid, USP, hydrous, fine gran., bgs., dms., c.l.	lb.	.27½	- .28
bgs., dms., 10,000-lb. lots, 1 shipt.	lb.	.28	- .28½
bgs., dms., smaller lots.	lb.	.29	- .29½
Powdered citric acid ½c. per lb. higher.			
Citronella oil, Ceylon, dms.	lb.	1.00	- —
Java-type, dms.	lb.	.91	- —
Citronellal, bots., dms.	lb.	1.60	- 2.10
Citronellol, bots., dms.	lb.	1.90	- 2.50
Citronellol, synthetic, dms.	lb.	1.70	- —
Civet, artif., bots.	lb.	13.75	-15.00
Nat., bots.	oz.	8.50	-15.00
Clay, ball., dom., airfloated, bgs., c.l., Tenn.	ton.	17.50	-21.50
crushed shed moisture, bulk, c.l., Tenn.	ton.	8.00	-11.25
imp., airfloated, bgs., c.l., Atl. port	net-ton.	43.00	-47.00
lump, bulk, Atl. port	net-ton.	31.50	-37.50
Clay, China, dom., dry-grd., air-floated, 99%, 325 mesh, Georgia, bgs., c.l., works.	ton.	11.00	-17.00
Georgia, bgs., l.c.l., works.	ton.	13.50	-22.50
imp., white, lump, bulk, c.l. ex-dock, Philadelphia, Portland, Me.	long-ton.	23.00	-35.00
white, powd., bgs., c.l., ex dock.	net-ton.	50.00	- —
bgs., l.c.l., ex whse.	net-ton.	60.00	-70.00
Cleaners naphtha, petroleum, 105°F Flash, tankcars, New Jersey and New York	gal.	18	- —
Group 3	gal.	.12875	- —
Houston, Texas	gal.	.145	- —
140°F Flash, tankcars, New Jersey or New York	gal.	.205	- —
Group 3	gal.	.154	- —
Houston, Texas	gal.	.17	- —
Cleve's acid, tech., mixed, solid, dms., frt. alld.	lb.	1.05	- —
1.6, tech., solid, dms., frt. alld.	lb.	.77	- —
1.7, tech., dms., frt. alld.	lb.	2.20	- —
Cloves, Madagascar, bgs.	lb.	.38½	- —
Zanzibar, bgs.	lb.	.38½	- —
Clove bud oil, USP, dms.	lb.	2.70	- 3.60
Clove leaf oil, crude, dms.	lb.	1.25	- —
CMC, crude, 96.4% low or medium vis., bgs. or fib. dms., 23,000 lbs., dlvd. E., 100% basis	lb.	.41½	- —
96.4% low, or medium vis., bgs. or fib. dms., less than 23,000 lbs., dlvd. E., 100% basis	lb.	.43½	- —
65%, low or medium vis., bgs., or fib. dms., c.l., dlvd. E., 100% basis	lb.	.41½	- —
bgs. or fib. dms., l.c.l., dlvd. E., 100% basis	lb.	.43½	- —
purif., high vis. (see Cellulose gum).			
CMC, standard, low or medium vis., bgs., 23,000 lbs., works, frt. alld.	lb.	.57	- —
bgs., smaller lots, same basis.	lb.	.59	- —
CMC prices W. of the Rockies are 2c. per lb. lower and are on a works basis.			
Coaltar, crude, resale for soln., tanks, works	gal.	.17	- —
Refd., resale, indust., dms., c.l., ex whse.	gal.	.35	- —
dms., l.c.l., ex whse.	gal.	.39	- —
tanks, works	gal.	.20½	- —
Coaltar pitch, aluminum, bulk, works.	ton.	44.00	- —
Carbon and indust., bulk, works.	ton.	44.00	- —
Core, bulk works	ton.	40.50	- —
Fiber, bulk works	ton.	48.00	- —
Roofing, 140-155°F., Federal Specification RP-381 Type 1. tanks, works	ton.	41.00	- —
Cobalt acetate, 23.7% Co., dms., dlvd	lb.	1.04	- —
Cobalt blue, genuine, 250 lb. bbls., dlvd. E. of Rockies	lb.	4.90	- —
Cobalt blue prices 1c. higher W. of Rockies.			
Cobalt blue, imitation (see Ultramarine blue).			
Cobalt carbonate, 48% Co., powd., bgs., dlvd.	lb.	1.45	- —
Cobalt chloride, 24.2% Co., dms., dlvd.	lb.	.93	- —
Cobalt hydrate, 60-61% Co., dms., dlvd.	lb.	2.03	- —
Cobalt linoleate, fused 8½% Co., dms.	lb.	.71½	- —
Liq., 6% Co., dms.	lb.	.57½	- —
Cobalt metal, 99%, dms., f.o.b. carrier	lb.	1.50	- —
Cobalt naphthenate, liq., 6% Co., dms., dlvd	lb.	.48¾	- —
Cobalt nitrate, 20.1% Co., bbls., dlvd.	lb.	.75	- —
Cobalt oxide, black, ceramic grade, 72½-73½% Co., kgs., dlvd. E. of Mississippi R.	lb.	1.15	- —
70-71% Co. kgs., same basis	lb.	1.12	- —
Cobalt oxide prices W. of Mississippi R. 3c. per pound higher.			
Cobalt phosphate, powd., 32.1% Co., dms., dlvd	lb.	1.35	- —
Cobalt resinate, fused, 3% Co., dms.	lb.	.33½	- —
Cobalt sulfate, cryst., 21% Co., dms., dlvd	lb.	.64	- —
Monohydrated, 33% Co., dms., dlvd.	lb.	1.09	- —
Cobalt tallate, 6% Co., dms., dlvd.	lb.	.44	- —
Cocaine, USP, cns., 100-oz. lots, f.o.b. works	oz.	17.50	- —
Cocaine hydrochloride, cns., 100-oz. lots, f.o.b. works	oz.	13.75	- —
Cocillana bark, bls.	lb.	.18	- .20
Cocoa butter, bgs.	lb.	.59	- .64
Coconut oil, crude, tanks, New York	lb.	.14	- —
tanks, Pac. coast	lb.	.12¼	- —
Refd., deodorized, dms.	lb.	.19½	- .20¼
Coconut oil acids, dist., dms.	lb.	.25	- .27½
tanks	lb.	.22¼	- —
double dist. (stripped), dms.	lb.	.26	- .28½
tanks	lb.	.23¼	- —

An extra measure of service—always—when you buy from Eastman

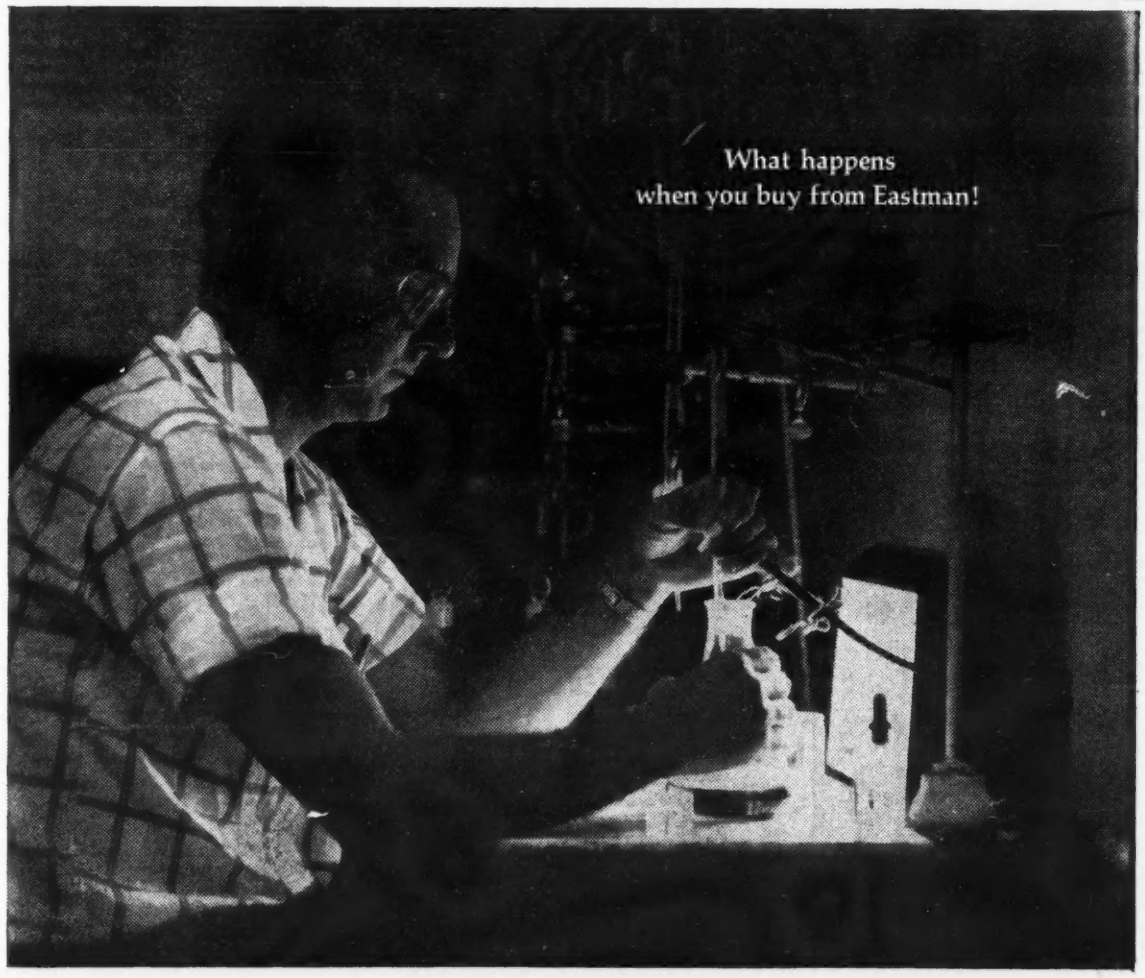
Eastman Cellulose Esters

Cellulose Acetate
Available in a number of types of varying acetyl contents and viscosities.
Principal uses include:
Coatings for paper, flash bulbs, wire screens and cable lacquers
Plastic molding and extrusion compounds
Textile fibers

Cellulose Acetate Butyrate
Available in a number of types of varying butyryl contents and viscosities.
Principal uses include:
Airplane dopes
Cable lacquers
Paper, plastic, metal and wood lacquers
Melt Coatings
Heat seal adhesives
Strip coatings

Oxidized Cellulose
For absorbable surgical gauze

For properties and shipping information on these and other Eastman products, see **Chemical Materials Catalog**, page 363, or **Chemical Week Buyers' Guide**, page 107.



Weekend work to catch the boat

"An order for special process cellulose acetate for South American delivery doesn't come every day of the week," related a Cellulose Esters Division production supervisor, "and frankly in this instance I thought someone had eased us pretty far out on the proverbial limb.

"It was Tuesday, November 15, 3:00 P.M. in Kingsport, Tennessee. The order plainly stated in the appropriate column that the material should be delivered to Pier 22, Port of New York, six hours prior to the boat's scheduled departure at 8:00 A.M.—on Tuesday, November 22. This meant that the material had to leave our plant by rail car on Thursday, November 17, at the latest.

"Now, then. First, the order was for 66,100 pounds. Second, it was not a standard inventory type of cellulose acetate. True, we had previously supplied this special material, so it was not a question of "know-how." But scheduling the production and all that goes with it, such as special controls and laboratory tests, bagging and loading crews, etc., posed a real problem.

"After a quick call to our order writing department to be sure everyone was all right over there, and upon confirmation of this and the accuracy of the order, we went to work.

"To make a long story short, we did *not* get the rail car loaded on Thursday. But by revising production schedules, weekend work for the technical staff, extra bagging and loading crews, and three fast trucks leaving our plant early Monday morning, November 21, we didn't miss the boat."

Another example of the interested personal service you get when you buy from Eastman.

Eastman CHEMICAL PRODUCTS, INC., KINGSPORT, TENNESSEE, Subsidiary of Eastman Kodak Company

SALES OFFICES: Eastman Chemical Products, Inc., Kingsport, Tennessee; Atlanta, Boston, Buffalo, Chicago, Cincinnati, Cleveland, Detroit, Greensboro, North Carolina, Houston, Kansas City, Missouri, New York City, Philadelphia, St. Louis
West Coast: Wilson & Geo. Meyer & Company, San Francisco, Los Angeles, Portland, Salt Lake City, Seattle

Cod oil, dms., spot ..... lb. .08¾- .08½
Codeine, NF, cns., 100-oz. lots oz. 13.25 - —
Codeine hydrochloride, cns., 100-oz. lots oz. 11.75 - —
Codeine phosphate, USP, cns., 100-oz. lots oz. 10.25 - —
Codeine sulfate, USP, cns., 100-oz. lots oz. 10.75 - —
Codliver oil, USP, dms. ..... gal. 1.40 - 1.70
Cohosh root, black, bls. ..... lb. 20 - .25
Blue, bls. ..... lb 20 - .25
Colchicine, USP, bots. ..... oz. 29.00 - —
Colchicum root, bls ..... lb. .35 - .45
Colchicum seed, bgs ..... lb .75 - .80
Collodion, USP, dms ..... lb. .32½- —
USP flexible, dms ..... lb. .34 - —
Colocynth pulp, bls. ..... lb. .75 - —
Colombo root, bls ..... lb. .16 - .18
Condurango bark, bls ..... lb. .18 - .20
Congo copal gum, No. 1, bgs. ..... lb. .26 - .27
No 2, bgs. ..... lb. .23 - .25
No 3, bgs. ..... lb. .18 - .20
Copaiba balsam, cns., dms. ..... lb. .65 - 1.10
Copaiba oil, cns ..... lb. 1.35 2.00
Copper acetate, bbls., c.l., works. ..... lb. .53 - —
bbls., l.c.l., works ..... lb. .54 - —
Copper carbonate, 55%, bgs., c.l., works lb. .3635- —
bgs., l.c.l., works ..... lb. .3785- —
Copper chloride cupric, anhyd., dms., works lb. .45½- .46
cryst., dihydrate, dms., works. ..... lb. .31 .31½
cryst., dried, dms., works lb. .29¼- .29¾
Copper chloride, cuprous, dms., works lb. .4135- .4435
Copper cyanide, tech., dms., 20,000-lb. lots or more lb. .609 - —
dms., 1,000-lb. lots or more lb. .619 - —
dms., smaller lots ..... lb. .639 - .65
Copper gluconate, dms ..... lb. 3.20 - —
Copper hydrate, dry, dms., c.l., frt. E. of Miss lb. .53½- —
dms., l.c.l., same basis ..... lb. .54 - —
Copper metal, electrolytic, dlvd., Valley basis lb. .33 - .36
Copper naphthenate, liq., 8% Cu, dms, frt. alld lb. .26½- —
Copper nitrate, tech., cryst., dms., works lb. .30¾ .32¾
Copper oleate, solid, 9% Cu, dms., works lb. .45 - —
Copper oxide, black, bbls., 100-5,000-lb lots, works lb. .49¼- —
Copper oxide, red, 97%, USN Type I, bbls., 100-5,000-lb. lots. lb. .50½- —
90%, USN Type II, bbls., 100-5,000-lb. lots or more, works. lb. .48½- —
Copper quinolinolate, 18% Cu, dms., ton lots lb. 4.25 - —
10% active quinolinolate, dms lb. 1.14 - 1.15
Copper resinate, precip., dms., frt. alld lb. .41½- —
Copper sulfate, CP, gran., dms., works lb. .1885- —
Cryst., 99%, bgs., c.l., works, 100 lbs. 13.00 - —
bgs., l.c.l., works 100 lbs. 13.25 -15.75
Monohydrated, 35%, dms., c.l., works 100 lbs. 24.00 - —
dms., l.c.l., works 100 lbs. 24.75 - —
Tribasic, distributors, bgs., c.l., works 100 lbs. 29.60 - —
bgs., l.c.l., works ..... 100 lbs. 31.10 - —
Copper undecylenate, dms lb 2 75 - —
Copra, Atl., Gulf ports, c.i.f. ..... ton. 170.00 - —
Pac. ports, c.i.f. ..... ton. 165.00 - —
Coriander oil, USP, bots. ..... lb. 7.25 - 8.75
Coriander seed, Moroccan, bgs. lb. .12 - —
Rumanian, bgs. ..... lb. .10½- —
Yugoslavian bgs. ..... lb .08½- —
Corn oil, crude, tanks, works ..... lb. .12⅛- —
Foots (soapstock) acid 95%, tanks, New York lb. .05 - —
Refd., salad, dms. ..... lb. .1785- .1810
tanks ..... lb. .1585- —
Corn oil acids, dist., dms. ..... lb. .15¾- .16¼
tanks ..... lb. .1648- —
Corn sugar, tanners, chipped, paper bgs., c.l., 60,000 lbs. min. 100 lbs. 7.30 - —
paper bgs., l.c.l 100 lbs. 7.45 - —
Corn syrup, 42° Be., tanks, f.o.b. plant 100 lbs. 5.41 - —
non-ret. dms., c.l., same basis. 100 lbs. 7.52 - —
Corrosive sublimate (see Mercuric chloride).
Cortisone acetate, USP, bots., kilo or more gram. 1.05 - 1.75
Costus oil, bots ..... oz. 6.00 - —
Cottonseed meal, 41%, bgs., Memphis ton. 57.00 - —
Cottonseed oil, crude, tanks, South, East lb. .09¼- .09½
tanks, Valley ..... lb. .09¼- —
tanks, Texas, Waco ..... lb. .09¼- —
tanks, Texas, Lubbock ..... lb. .09¼- —
Foots (soapstock), acid, 95%, tanks, Texas, Waco ..... lb. .03¼- —
Refd., salad, dms. ..... lb. .14½- .14¾
tanks ..... lb. .12½- —
Cottonseed oil acids, dist., dms lb. .15¾- .18¼
tanks ..... lb. .13⅛- —
Coumarin, NF, cryst., dms ..... lb. 3.30 3.40
Cramp bark, NF, bls ..... lb. .90 1.00
Cream of tartar (see Potassium bitartrate).
Creosote carbonate, NF, bots., cbys., lb. 3.05 - 3.26
Creosote, coaltar, crude, tanks, works, frt. adjusted gal. .24 - —
Crude, soln. 80%, tanks, works, gal. .226 - —
Refd., dms., c.l., works ..... gal. .50 - —
dms., l.c.l., same basis ..... gal. .62 - —
tanks, same basis ..... gal. .38 - —
West Coast creosote prices computed on a basis of 24c. per gallon for straight oil and 20c. per gallon for coaltar.
Creosote, beechwood, cbys., dms., f.o.b. works, dlvd. in Metropolitan area lb. 1.72 - 1.77
Hardwood, NF, cbys., dms., same basis lb. 1.42 - 1.47
Pinewood, dms., incl., c.l., works. lb. .0561- —
dms., incl., l.c.l., works ..... lb. .0634- —
dms., incl., l.c.l., ex whse, New York lb. .0745- —
tanks, works ..... lb. .0460- —
Creosote oil (see Creosote coaltar).
Cresol, tech., 50% below 204°C., dry above 207°C., wide distillation range, non-ret. dms., c.l., frt. alld lb. .16½- —
non-ret. dms., l.c.l., same basis lb. .17½- —
tanks, same basis ..... lb. .145 - —
Cresol, USP, 50% 204°C., dry above 207°C., wide distillation range, non-ret. dms., c.l., same basis lb. .18 - —
non-ret. dms., l.c.l., same basis. lb. .19 - —
tanks, same basis ..... lb. .16 - —
m-Cresol, 95-98%, dms., c.l., works. lb. .60 - —
dms., l.c.l., works ..... lb. .61 - —
m-p-Cresol, 5-95% 3°C., dms., c.l., frt. equald lb. .18 - —
dms., l.c.l., same basis ..... lb. .19 - —
tanks, same basis ..... lb. .16 - —
2.97% 2°C., dms., c.l., frt. equald. lb. .22 - —
dms., l.c.l., same basis ..... lb. .23 - —
tanks, same basis ..... lb. .20 - —
o-Cresol, 30.5°C. m.p. and over, ret., dms., c.l., frt. equald lb. .17 - —
ret. dms., l.c.l., same basis lb. .18 - —
tanks, same basis ..... lb. .15 - —
30°-30.49°C. m.p., dms., c.l., frt. equald lb. .16½- —
ret. dms., l.c.l., same basis lb. .17½- —
tanks, same basis ..... lb. .14½- —
o-Cresol, 30.5°C. m.p. and over, ret.
Cresol, 29°-29.9°C. m.p., dms., c.l., frt equald lb. .16 - —
ret. dms., l.c.l., same basis lb. .17 - —
tanks, same basis ..... lb. .14 - —
25°-28°C. m.p., dms., c.l., frt. equald lb. .15 - —
ret. dms., l.c.l., same basis lb. .16 - —
tanks, same basis ..... lb. .13 - —
p-Cresol, 98%, dms., c.l., dlvd lb. .52 - —
dms., l.c.l., dlvd ..... lb. .53 - —
tanks, dlvd ..... lb. .49 - —
2,3-Cresotic acid, dms., ton lots, works lb. .70 - —
dms., smaller lots, works ..... lb. .72 - —
p-Cresyl methyl ether, cns lb. 1.80 - 2.05
Cresylic acid, coaltar, dom., meta-para content above 25%, resins and tricresyl phosphate grades, dms., c.l., t.l., frt equald gal. 1.35 - —
dms., l.c.l., same basis gal. 1.40 - —
tanks, same basis gal. 1.15 - —
metapara content 25% or less, dms., c.l., t.l., same basis gal. 1.20 - —
dms., l.c.l., same basis gal. 1.25 - —
tanks, frt. equald ..... gal. 1.00 - —
Cresylic acid, coaltar, imp., meta-para content 25% or less, f.o.b. works, frt. equald, to competitive points, 50 dms. or more. gal. 1.03½- —
less than 50 dms., same basis gal. 1.05 - 1.15
tanks, same basis ..... gal. 1.00 - —
Crotonaldehyde, 91-93%, dms., l.c.l., works lb. .25 - —
Crotonic acid, dms., 200 lbs. or more, l.c.l., dlvd lb. .36 - —
Cryolite, nat., indust., bgs., c.l., works 100 lbs. 13.00 - —
bgs., l.c.l. works 100 lbs. 14.25 - —
Cube root, powd., 5% rotenone, bgs., t.l., works lb. .21 - —
bgs., l.t.l., works ..... lb. .22 - —
Cubeb berries, NF, bgs ..... lb. 1.00 - —
Powd., cs. ..... lb 1.15 - —
Cubeb oil, cns ..... lb. 12.00 -16.00
Cumene, dms., c.l., works ..... lb. .12 - —
dms., l.c.l., works ..... lb. .14 - —
tanks, works ..... lb. .11 - —
Cumin seed, Iranian, bgs. ..... lb. .22 - —
Moroccan, bgs. ..... lb. .36 - —
Turkish, bgs. ..... lb. .27 - —
Cumin seed oil, bots., cns ..... lb. 15.50 -17.00
Cyanamide, fertilizer, mixing grade, 21% N, gran., bgs., Niagara Falls, Ont., contract. ton. 57.00 - —
Fertilizer, pulv., 21% N, bgs., works unit-ton. 2.85 - —
Cyanamide, fertilizer, indust. grade, bgs, c.l., works ton. 75.00 - —
bgs., l.c.l., works ton. 96.00 - —
Indust. grade, 6-16 mesh, dms., c.l., works ton. 120.00 - —
dms., l.c.l., works ton. 140.00 - —
Cyclohexane, 99%, tech., dms., c.l., dlvd. E of Rockies gal. 1.02 - —
dms., l.c.l., same basis gal. 1.10 - —
dms., c.l., dlvd. W of Rockies gal. .77 - —
dms., l.c.l., same basis gal. .85 - —
tanks, works ..... gal. .55 - —
96%, tech., 40-dm. lots or more, f.o.b. works gal. .56 - —
5-39 dms., same basis ..... gal. .60 - —
tanks, same basis ..... gal. .36 - —
Cyclohexanol, tech., dms., c.l., works, frt. alld. E lb. .28½- —
dms., l.c.l., works, same basis. lb. .29½- —
tanks, works, same basis ..... lb. .26 - —
Cyclohexanone, tech., dms., c.l., works lb. .33½- —
dms., l.c.l., works ..... lb. .34½- —
tanks, works ..... lb. .31 - —
lb. .49 - —
dms., l.c.l., works ..... lb. .50 - —
tanks, works ..... lb. .47 - —
Cypress oil, bots. ..... lb. 5.30 - —

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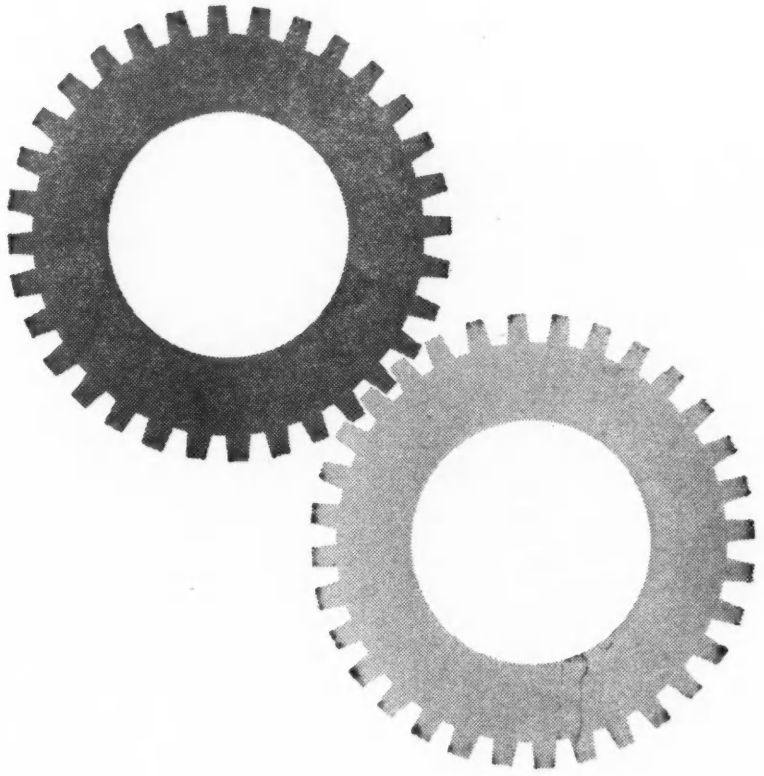
2,4-D, tech., bgs., dms., c.l., works, frt. equald lb. .40 - —
tanks, dlvd. E. ..... lb. .41 - —
bgs., dms., l.c.l., same basis lb. .45 - .49
2,4-D butyl ester, dms., c.l., works. lb. .43 - —
dms., l.c.l., same basis ..... lb. .48 - .52
tanks, same basis ..... lb. .42 - —
2,4-D isopropyl ester, dms., c.l., works lb. .43 - —
dms., l.c.l., works ..... lb. .48 - .52
tanks, works ..... lb. .42 - —
Dammar gum, Batavia, A E. cs lb. No stocks.
East India, Batu, bold, bgs lb. .15½- .18
nubs and chips, bgs. ..... lb. .09 .10
black, bold, bgs ..... lb. .15½- .18
nubs and chips, bgs. ..... lb. .12¼- .13½
unscraped, bgs. ..... lb. .13 - .14½
pale, chips, bgs. ..... lb. .15 - .17
pale, nubs, bgs. ..... lb. .20¾- .24
Siam, cs. ..... lb. .31½- .34
Singapore, No. 1, bgs. ..... lb. .34 - .40
No 2, bgs. ..... lb. .29 - .32
dust, bgs. ..... lb. .18 - .20
No. 3, bgs. ..... lb. No stocks.
Dandelion root, bls ..... lb. .35 - .40
DDD, tech., flake, grd., fib. dms., c.l., works lb. .45 - .47
fib. dms., l.c.l., works lb. .46 - .48
DDT, flake or lump, bgs., c.l., dlvd lb. .23 - —
bgs., smaller lots, same basis. lb. .25 - —
fib. dms., c.l., same basis ..... lb. .24 - —
fib. dms., smaller lots, same basis lb. .26 - —
Powdered DDT 1c. per pound higher.
DDVP (see Dimethyl dichlorovinyl phosphate).
l-Decanol, tech., dms., c.l., dlvd. E. lb. .43½- —
dms., l.c.l., dlvd. E. ..... lb. .45½- —
Cyclohexylamine, dms., c.l., works.
Decyl alcohol, mixed isomers, dms., c.l., dlvd lb. .23½- —
dms., l.c.l., dlvd. ..... lb. .25 - —
tanks, dlvd. ..... lb. .21 - —
Perfume grade, bots. ..... lb. 1.00 - 2.00
Decyl alcohol, normal (see l-Decanol).
Deertongue leaves, bls. ..... lb. .55 - .60
Defluorinated phosphate, feed grade, 14% P, paper bgs., c.l., t.l., Tupelo, Miss. ton. 57.07 - —
18% P, paper bgs., c.l., works. ton. 66.25 -71.80
19% P, paper bgs., c.l., t.l., works, Houston, Tex. ton. 74.35 - —
Prices of defluorinated phosphate in bulk $3 per ton less than bg. c.l. prices.
Degras, common (15-17% free fatty acid), 400-lb. dms lb. .12 - .14
Neutral (over 2% free fatty acid), 400-lb. dms lb. 13 - —
Denatured alcohol, ethyl, CD-12, CD-13, CD-14, CD-17, dms., c.l., dlvd E of Rockies, gal. .69½- —
dms., l.c.l., same basis ..... gal. .74½- .80½
tanks, dlvd. same basis ..... gal. .53½- —
Tankcar sales require written authorization by Alcohol and Tobacco Tax Division.
Denatured alcohol, ethyl, proprietary solvent, dms., c.l., dlvd. E of Rockies gal. .72 - —
dms., l.c.l., same basis ..... gal. .77 - .83
tanks, same basis ..... gal. .56 - —
Tankcar sales require written authorization by Alcohol and Tobacco Tax Division.
Denatured alcohol, ethyl, SD1, dms., dlvd E of Rockies gal. .70½- —
dms., l.c.l., same basis ..... gal. .75½- .81½
tanks, same basis ..... gal. .54½- —
SD2B, dms., c.l., dlvd. E. of Rockies gal. .69 - —
dms., l.c.l., same basis ..... gal. .74 - .80
tanks, same basis ..... gal. .53 - —
SD3A, dms., c.l., dlvd. E. of Rockies gal. .68 - —
dms., l.c.l., same basis ..... gal. .73 - .79
tanks, same basis ..... gal. .52 - —
Denatured alcohol, ethyl, SD23A, dms., c.l., dlvd. E. of Rockies gal. .70½- —
dms., l.c.l., same basis ..... gal. .75½- .81½
tanks, same basis ..... gal. .54½- —
SD23H, dms., c.l., dlvd. E. of Rockies gal. .71 - —
dms., l.c.l., same basis ..... gal. .76 - .82
tanks, same basis ..... gal. .55 - —
Denatured alcohol, SD29, dms., c.l., dlvd. E. of Rockies gal. .69½- —
dms., l.c.l., same basis ..... gal. .74½- .80½
tanks, same basis ..... gal. .53½- —
SD30, dms., c.l. dlvd. E. of Rockies gal. .68 - —
dms., l.c.l., same basis ..... gal. .73 - .79
tanks, same basis ..... gal. .52 - —
Denatured alcohol, ethyl, SD-35A, dms., c.l., dlvd. E. of Rockies gal. .71 - —
dms., l.c.l., same basis ..... gal. .76 - .82
tanks, same basis ..... gal. .55 - —
SD-40, dms., c.l., dlvd. E. of Rockies gal. .70½- —
dms., l.c.l., same basis ..... gal. .75½- .81½
tanks, same basis ..... gal. .54½- —
For anhyd. alcohol on above formulas prices are 7c. per gal. higher.
West coast dlvd. prices are the same as eastern prices, except in Idaho, Montana, Oregon, and Washington where a 5c. differential on tankcars is maintained.
d-Desoxyephedrine hydrochloride, dms lb. 15.00 -17.00
dl-Desoxyephedrine hydrochloride, dms lb. 6.50 - —
Dextrin, corn, gum, paper bgs., c.l., 100 lbs. 9.38 - —
paper bgs., l.c.l ..... 100 lbs. 9.53 - —
canary dark, paper bgs., c.l. 100 lbs. 9.22 - —
paper bgs., l.c.l. ..... 100 lbs. 9.37 - —
indust. grade, 6-16 mesh, canary light, paper bgs., c.l. 100 lbs. 9.12 - —
paper bgs., l.c.l. ..... 100 lbs. 9.27 - —
white, paper bgs., c.l. ..100 lbs. 8.96 - —
paper bgs., l.c.l. ..... 100 lbs. 9.11 - —
Corn dextrin in cotton bgs. 15c. per 100 lbs. higher
Dextrose, anhyd., comi., bgs., c.l. 100 lbs. 8.65 - —
bgs., l.c.l. ..... 100 lbs. 8.80 - —
Anhyd., special, aluminum foil lined fib. dms., 200-lb. dms 100 lbs. 14.70 - —
100-lb. dms. ..... 100 lbs. 15.20 - —
Hydrated, coml., bgs., c.l., ex whse. 100 lbs. 7.45 - —
bgs., c.l., ex whse ..... 100 lbs. 7.60 - —
USP, dms. ..... lb. .19¾- —
Diacetone alcohol, acetone-free, dms., c.l., dlvd. lb. .15½- —
dms., l.c.l., dlvd. ..... lb. .17 - —
tanks, dlvd. ..... lb. .13 - —
Tech., dms., c.l., dlvd. ..... lb. .15 - —
dms., l.c.l., dlvd. ..... lb. .16½- —
tanks, dlvd ..... lb. .12½- —
Diacetyl, flavor grade, bots. ..... lb. 4.30 - 4.55
Di-sec-amyl phenol, dms., c.l., works. lb. .32 - —
dms., l.c.l., works ..... lb. .33 - —
tanks, works ..... lb. .29½- —
Di-tert-amyl phenol, dms., c.l., works. lb. .32 - —
dms., l.c.l., works ..... lb. .33 - —
tanks, works ..... lb. .29½- —
Dialkylamine, dms., c.l., dlvd. ..... lb. .98½- —
dms., l.c.l., dlvd. ..... lb. 1.00 - —
tanks, dlvd. ..... lb. .96 - —
o-Dianisidine, dry, tech., fib. dms. lb. 2.00 - —
Dibenzyl sebacate, dms., c.l., works. lb. .93 - —
dms., l.c.l., same basis ..... lb. .94 - —
tanks, same basis ..... lb. .91 - —
Dibromobenzene, bgs., 500-lb. lots. lb. .55 - —
2,6-Di-tert-butyl-p-cresol, feed grade, c.l., t.l., dms., dlvd. lb. .65 - —
l.t.l., dms., same basis ..... lb. .68 - —
Food grade, c.l., t.l., dms., dlvd. lb. .65 - —
dms., l.t.l., same basis ..... lb. .68 - 1.10
Tech., dms., c.l., t.l., dlvd. ..... lb. .57 - —
dms., l.c.l., same basis ..... lb. .60 - —
tanks, same basis ..... lb. .54 - —
Dibutyl fumarate, dms., c.l., t.l., dlvd. E. lb. .31½- —
dms., l.c.l., l.t.l., dlvd. E. ..... lb. .33 - —
tanks, dlvd E ..... lb. .29 - —
Dibutyl maleate, dms., c.l., t.l., dlvd. E. lb. .31½- —
dms., l.c.l., l.t.l., dlvd. E. ..... lb. .33 - —
tanks, dlvd. E ..... lb. .29 - —
Dibutyl phthalate, dms., c.l., dlvd, E. lb. .31 - —
dms., l.c.l., same basis ..... lb. .32½- —
tankcars, tanktrucks, 2,000 gals., same basis lb. .30 - —
tanktrucks, 1,000-1,999 gals., same basis lb. .29½- —
Dibutyl sebacate, dms., c.l., works. lb. .67½- —
dms., l.c.l., works ..... lb. .68½- —
tanks, works ..... lb. .65½- —
Dibutyl tartrate, dms., works, frt. alld. lb. .68½- —
Dibutylamine, dms., c.l., dlvd. lb. .55½- —
dms., l.c.l., same basis ..... lb. .57 - —
tanks, same basis ..... lb. .53 - —
Dicapryl phthalate, dms., c.l., dlvd. lb. .27½- —
dms., l.c.l., dlvd. ..... lb. .29 - —
tanks, dlvd. ..... lb. .25 - —
Dicapryl sebacate, dms., c.l., works. lb. .63 - —
dms., l.c.l., works ..... lb. .63½- .64
tanks, works ..... lb. .61 - —
2,5-Dichloroaniline, dms., works lb. .83 - —
3,4-Dichloroaniline, tech., solid, tanks, frt. alld lb. .73 - —
o-Dichlorobenzene, dms., c.l., frt. alld. E lb. .12¾- —
dms., l.c.l., same basis ..... lb. .13¾- —
tanks, same basis ..... lb. .11 - —
p-Dichlorobenzene, dms., c.l., f.o.b., works, frt. alld. E lb. .12 - —
dms. 2,000 lbs. or more same basis lb. .14½- —
1,4-Dichlorobutane, dms., c.l., or t.l., works lb. .33½- —
dms., l.c.l., or l.t.l., works ..... lb. .34 - —
tanks, works ..... lb. .32 - —
Dichlorodiphenyltrichloroethane (see DDT).
2,2-Dichloroethyl ether, dms., c.l., t.l., dlvd. E lb. .15½- —
dms., l.c.l., l.t.l., same basis ..... lb. .17 - —
tanks, same basis ..... lb. .13 - —
Dichloroisocyanuric acid, dms., c.l., t.l., frt. equald lb. .65 - —
dms., l.c.l., same basis lb. .75 - —
Dichloropentanes, dist., dms., c.l., works lb. .05 - —
dms., l.c.l., works ..... lb. .06 - —
tanks, works ..... lb. .03 - —
Dichlorophenoxyacetic acid (see 2,4-D).
Dicyclohexylamine, dms., c.l., works. lb. .54 - —
dms., l.c.l., works ..... lb. .55 - —
tanks, works ..... lb. .52 - —
Dicyclohexyl phthalate, gran., fib. dms., c.l., works, frt. alld. lb. .46½- —
fib. dms., l.c.l., same basis lb. .48 - —
Dicyclopentadiene, dms., c.l., f.o.b. works lb. .14½- —
dms., l.c.l., same basis ..... lb. .14¾- —
tanks, same basis ..... lb. .12 - —
Didecyl phthalate, dms., c.l., works. lb. .28½- —
dms., l.c.l., same basis lb. .30 - —
tankcars, tanktrucks, 2,000 gals. lb. .26 - —
tanktrucks, 1,000-1,999 gals, same basis lb. .26½- —
Dieldrin, dms., c.l., dlvd. ..... lb. 1.85 - —
dms., l.c.l. dlvd. ..... lb. 1.90 - —
Diethanolamine, dms., c.l., dlvd. E. lb. .27 - —
dms., l.c.l., same basis ..... lb. .28½- —
tanks, same basis ..... lb. .24½- —
Diethanolamine lauryl sulfate, dms., c.l., frt. alld lb. .27½- —
dms., l.t.l., frt. alld. ..... lb. .28½- —
tanks, frt. alld. ..... lb. .26½- —
Diethyl barbituric acid (see Barbital).
Diethyl carbonate, dms., c.l., f.o.b. works lb. .47½- —
dms., l.c.l., same basis ..... lb. .48½- —
tanks, same basis ..... lb. .45 - —
Diethyl ethanolamines, dms., c.l., dlvd lb. .69½- —
dms., l.c.l., dlvd. ..... lb. .71 - —
tanks, dlvd. ..... lb. .67 - —
Diethyl oxalate, dms., c.l., f.o.b. works lb. .42½- —
dms., l.c.l., same basis ..... lb. .43½- —
tanks, same basis ..... lb. .40 - —
Diethyl phthalate, dms., c.l., dlvd. lb. .27½- —
dms., l.c.l., dlvd. ..... lb. .29 - —
tanktrucks, 1,000-1,999 gals, same basis lb. .26½- —
tankcars, tanktrucks, 2,000-lb. lots, same basis lb. .26 - —
Diethyl sulfate, dms., c.l., works lb. .19½- —
dms., l.c.l., works ..... lb. .20¼- —
tanks, works ..... lb. .17½- —
Diethyl thiourea, dms., c.l., t.l., works lb. .58 - —
dms., l.c.l., same basis ..... lb. .59 - —
Diethyl toluamide, 90-95% meta isomer, dms., c.l., t.l., works. lb. 2.30 - —
5-44 dm. lots, works ..... lb. 2.35 - —
1-4 dm. lots, works ..... lb 2.40 - —
N,N-Diethyl-m-toluidine, tech., liq., tanks, frt. alld lb. .83 - —
Diethylamine, dms., c.l., dlvd. E lb. .52 - —
dms., l.c.l., same basis ..... lb. .53½- —
tanks, same basis ..... lb. .49½- —
N,N-Diethylaniline, dms., c.l., frt. alld lb. .57 - —
dms., l.c.l., same basis ..... lb. .58 - —
tanks, same basis ..... lb. .55 - —
Diethylbenzene, dms., t.l., frt. alld. lb. .16½- —
Di-2-ethylhexyl adipate (see Dioctyl adipate).
Di-2-ethylhexyl phthalate (see Dioctyl phthalate).
Diethylene glycol, dms., c.l., dlvd. E. lb. .17¾- —
dms., l.c.l., same basis ..... lb. .19¼- —
tanks, same basis ..... lb. .15¼- —
Diethylene glycol diethyl ether, dms., c.l., works lb. .51½- —
dms., l.c.l., works ..... lb. .52¼- —
Diethylene glycol monobutyl ether, c.l., dms., works lb. .30¾- —
dms., l.c.l., works ..... lb. .32¼- —
tanks, dlvd. E. ..... lb. .28¼- —
Diethylene glycol monobutyl ether acetate, dms., c.l., works. lb. .30¾- —
dms., l.c.l., works ..... lb. .31½- —
tanks, dlvd. E. ..... lb. .28¾- —
Diethylene glycol monoethyl ether, dms., c.l., dlvd lb. .22½- —
dms., l.c.l., dlvd. ..... lb. .24 - —
tanks, dlvd. E. ..... lb. .20 - —
Diethylene glycol monoethyl ether acetate, dms., c.l., works. lb. .27¼- —
dms., l.c.l., works ..... lb. .28 - —
tanks, works ..... lb. .25½- —
Diethylene glycol monomethyl ether, dms., c.l., dlvd lb. .21 - —
dms., l.c.l., dlvd. ..... lb. .22½- —
tanks, dlvd. E. ..... lb. .18½- —
Diethylenetriamine, dms., c.l., dlvd. E lb. .44 - —
dms., l.c.l., dlvd. E. ..... lb. .45½- —
tanks, dlvd. E. ..... lb. .41½- —
Diethylstilbesterol, USP, bots., 10-kilo lots kilo. 100.00 -147.50
bots, 1-kilo lot ..... kilo. 110.00 -152.50
Digitalis leaves, USP, dom., dms lb. 1.25 - —
Digitoxin, USP, bots. ..... gram. 4.20 - —
Diglycol laurate, dms. ..... lb. .32¾- .34
Diglycol stearate, dms., ton lots lb. .26 - .28
Diglycolic acid, bgs., c.l., t.l., works. lb. .15½- —
bgs., l.c.l., works ..... lb. .16 - —
Dihexyl sebacate, dms., c.l., works. lb. .66 - —
dms., l.c.l., works ..... lb. .67 - —
tanks, works ..... lb. .64 - —
Dihydrazine sulfate, dms., works lb. 1.10 - 1.25
Dihydrostreptomycin sulfate, bulk. gram. .035 - .036
1,3-Dihydroxy anthraquinone, dms., works lb. 3.45 - —
2,2-Dihydroxy-5-5-dichloro-diphenyl-methane, pure, dms lb. 2.55 - —
Tech., dms., 20,000 lbs. or more lb. 1.11 - —
dms., 1,050 lbs. to 20,000 lbs. lb. 1.13 - —
dms., 150 lbs. to 1,050 lbs. ..... lb. 1.15 - —



COÖPERATION

Close coöperation with clients on all stages of manufacture and marketing is a vital part of the Cyanamid Fine Chemicals Department service. Cyanamid's 50 plants and 30,000 skilled employees represent this coöperation and production capacity. Your Fine Chemicals Department representative is always ready to bring you close technical assistance of the highest calibre. If you have "problems"... in formulation, stability, or new product development ... the Fine Chemicals Department representative is the man to contact.

Vitamins, sulfonamides, antibiotics, Intrinsic factor concentrate and other bulk pharmaceuticals. Complete custom synthesis service.

CYANAMID

AMERICAN CYANAMID COMPANY
FINE CHEMICALS DEPARTMENT
30 Rockefeller Plaza, New York 20, N. Y.

Di-isobutyl Ketone—Dyes

Di-isobutyl ketone, dms., c.l., dlvd.	lb.	.17	—
dms., l.c.l., dlvd.	lb.	.18½	—
tanks, dlvd.	lb.	.14½	—
Di-isobutyl phthalate, dms., c.l., dlvd. E.	lb.	.31½	—
dms., l.c.l., same basis	lb.	.32½	—
tanks, same basis	lb.	.29	—
Di-isobutylene, dms., c.l., dlvd. E	lb.	.10	—
dms., l.c.l., dlvd. E.	lb.	.11½	—
tanks, dlvd. E.	lb.	.08	—
Di-iso-octyl phthalate, dms., c.l., dlvd	lb.	.28½	—
dms., l.c.l., same basis	lb.	.30	—
tanktrucks, 1,000-1,999 gals., dlvd.	lb.	.26½	—
tankcars, tanktrucks, 2,000 gals., dlvd	lb.	.26	—
Di-iso-octyl sebacate, dms., c.l., works	lb.	.62	—
dms., l.c.l., works	lb.	.62½	.63
tanks, works	lb.	.60	—
Di-isopropanolamine, dms., c.l., dlvd.	lb.	.23¼	—
dms., l.c.l., same basis	lb.	.24¾	—
tanks, same basis	lb.	.20¾	—
Di-isopropylamine dms., c.l., dlvd. E. of Rockies	lb.	.50½	—
dms., l.c.l., same basis	lb.	.52	—
tanks, same basis	lb.	.48	—
Dillweed oil, dom., bots., dms	lb.	3.75	4.80
Dimethyl anthranilate, cns.	lb.	4.15	—
Dimethyl dichlorovinyl phosphate, 55-gal. dms., dlvd	lb.	3.50	—
Dimethyl ethanolamines, anhyd., dms., c.l. dlvd	lb.	1.225	—
dms., l.c.l., dlvd.	lb.	1.235	—
tanks, dlvd.	lb.	1.20	—
70% dms., c.l., dlvd., 100% basis, contained amines	lb.	.68½	—
dms., l.c.l., dlvd., 100% basis.	lb.	.69½	—
tanks, dlvd., 100% basis	lb.	.66	—
Dimethyl hydroquinone, dms.	lb.	1.90	2.20
Dimethyl phthalate, dms., c.l., works	lb.	.28½	—
dms., l.c.l., works	lb.	.30	—
tanktrucks, 1,000-1,999 gals., same basis	lb.	.26½	—
tankcars, tanktrucks, 2,000 gals., same basis	lb.	.26	—
Dimethyl sebacate, dms., c.l., works.	lb.	1.31	—
dms., l.c.l., works	lb.	1.30	—
tanks, works	lb.	1.28	—
Dimethyl sulfate, ret. dms., c.l., works	lb.	.17½	—
ret. dms., l.c.l., works	lb.	.18½	—
tanks, works	lb.	.16½	—
Dimethyl sulfide, dms., c.l., works.	lb.	.18	—
dms., l.c.l., works	lb.	.18½	—
tanks, works	lb.	.15	—
Dimethylamine, 25% soln., dms., c.l., frt. equald, 100% basis	lb.	.38	—
dms., l.c.l., frt. equald, 100% basis	lb.	.38½	—
tanks, frt. equald, 100% basis.	lb.	.28	—
40% soln., dms., c.l., frt. equald, 100% basis	lb.	.33	—
dms., l.c.l., frt. equald, 100% basis	lb.	.35½	—
tanks, frt. equald, 100% basis.	lb.	.28	—
N,N-Dimethylaniline, dms., c.l., frt. alld	lb.	.28	—
dms., l.c.l., same basis	lb.	.29	—
tanks, same basis	lb.	.26	—
N,N-Dimethylformamide, dms., c.l., t.l., works	lb.	.32½	—
dms., l.c.l., works	lb.	.33	.34
tanks, works	lb.	.30	—
2,4-Dinitroaniline, dms., frt. alld	lb.	.75	—
Dinitroaniline orange toner, CP, bbls., dlvd. E. of Rockies.	lb.	1.56	—

Dinitroaniline orange toner prices 1c higher W. of Rockies.

m-Dinitrobenzene, 89°C., dms.	lb.	.26	—
2,4-Dinitrochlorobenzene, crystallizing at 46½°C., dms., c.l., frt. alld. E	lb.	.17¼	—
dms., l.c.l., frt. alld. E.	lb.	.17¾	—
tanks, frt. alld. E.	lb.	.17	—
2,4-Dinitrophenol, bbls.	lb.	.41	—
2,4-Dinitrotoluene, oil, dms.	lb.	.11	—
Refd., 63°C., dms.	lb.	.23	—
Dioctyl adipate, dms., c.l., works	lb.	.42½	—
dms., l.c.l., works	lb.	.43½	—
tanks, works	lb.	.40	—
Dioctyl phthalate, dms., c.l., frt. alld	lb.	.28½	—
dms., l.c.l., frt. alld	lb.	.30	—
tanktrucks, 1,000-1,999 gals., same basis	lb.	.26½	—
tankcars, tanktrucks, 2,000 gals., same basis	lb.	.26	—
Dioctyl sebacate, dms., c.l., works.	lb.	.61¼	—
dms., l.c.l., works	lb.	.62¼	—
dms., l.c.l., works	lb.	.62¼	—
tanks, works, dlvd.	lb.	.59¼	—
1,4-Dioxane, dms., c.l., dlvd. E	lb.	.31½	—
dms., l.c.l., dlvd. E	lb.	.33	—
tanks, dlvd. E.	lb.	.29	—

Prices in the west are 2c. per lb. higher.

Dipentaerythritol, bgs., c.l., t.l., dlvd. E	lb.	.40	—
bgs., l.c.l., l.t.l., dlvd. E.	lb.	.41	—
Dipentene, dest.-dist., dms., c.l., works	gal.	.58	—
dms., l.c.l., works	lb.	.62	—
dms., l.c.l., ex whse.	gal.	.78	—
tankscars, works	gal.	.41	—
Steam dist., dms., c.l., works, South	gal.	.72	—
dms., l.c.l., dlvd. New York	gal.	.91	—
tanks, works, South	lb.	.55	—

Dip oil (see Tar acid oil).

Diphenolic acid, 1,000-lb. or more, bgs., works	lb.	.75	—
Diphenolic polyether acids, 1,000-lb. or more, bgs., works	lb.	1.00	—
Diphenyl, bgs., c.l., t.l., works	lb.	.16¾	—
bgs., l.c.l., works	lb.	.18½	—
tanks, works	lb.	.15¾	—
Diphenyl oxide, perfume grade, cns.	lb.	.55	.70
Diphenyl phthalate, dms., c.l., works.	lb.	.51¾	—
dms., l.c.l., works	lb.	.53¾	—
Diphenylamine, refd., flake, bgs., c.l., works, frt. equald	lb.	.31	—
bgs., l.c.l., same basis	lb.	.33	—
Refd., fused, tanks, same basis	lb.	.28	—

Refd., diphenylamine in dms., ½c. per lb. higher.

Diphenylguanadine, bgs., dms., ton lots, frt. alld	lb.	.49	—
bgs., smaller lots frt. alld	lb.	.50	—
Diphenylhydantoin-sodium, USP, dms	lb.	5.00	5.60
Dipropylene glycol, dms., c.l., frt. alld	lb.	.17	—
dms., l.c.l., frt. alld.	lb.	.18½	—
tanks, frt. alld.	lb.	.14¼	—
Dipropylene glycol methyl ether, dms., c.l., dlvd. E	lb.	.20	—
dms., l.c.l., same basis	lb.	.21½	—
tanks, same basis	lb.	.18½	—
Dithiodibenzoic acid, dms., 1,000-lb. lots, works	lb.	1.45	—
Di-o-tolylguanidine, dms., ton lots, frt. alld	lb.	.69	—
dms., smaller lots, frt. alld	lb.	.70	—
Di-o-tolylthiourea, tech., solid, dms., c.l., t.l., frt. alld	lb.	.55	—
Divinylbenzene, 20-25%, dms., c.l., works, frt. equald	lb.	.20	—
dms., l.c.l., same basis	lb.	.21	—
tanks, same basis	lb.	.19	—
50-60%, dms., c.l., works, 100% basis	lb.	1.00	—
dms., l.c.l., works, 100% basis.	lb.	1.05	—
tanks, same basis	lb.	.90	—
Dodecenyl succinic anhydride, dms., c.l., t.l., dlvd. E	lb.	.75	—
dms., l.c.l., t.l., same basis	lb.	.76	—
Dodecylbenzene, dms., c.l., f.o.b., works, frt equald	lb.	.134	—
dms., l.c.l., same basis	lb.	.144	—
tanks, same basis	lb.	.11	—
Dodecylphenol, c.l., frt. alld.	lb.	.22	—
dms., l.c.l., same basis	lb.	.23	—
tanks, same basis	lb.	.19½	—

Dodecylphenol prices on shipments to Western States are 2c. per pound higher.

Dyes, coaltar, certified colors for food, drugs and cosmetics, 500-lb. and 1-lb. lots, dlvd.:

Blue, FD&C, No. 1	lb.	15.65	-17.60
No. 2	lb.	15.65	-17.60
Green, FD&C, No. 1	lb.	15.65	-17.60
No. 2	lb.	19.60	-22.85
No. 3	lb.	31.30	-35.90
Red, FD&C, No. 1	lb.	5.90	- 7.85
No. 2	lb.	3.30	- 4.10
No. 3	lb.	19.60	-22.85
No. 4	lb.	5.55	- 7.50

Dyes, coaltar, certified colors for drugs and cosmetics, 500-lb. and 1-lb. lots, dlvd:

Violet, FD&C, No. 1	lb.	15.65	-17.60
Yellow, FD&C, No. 1	lb.	9.15	-11.05
No. 5	lb.	3.30	- 4.10
No. 6	lb.	3.30	- 4.10

Dyes, coaltar, certified colors for drugs and cosmetics, 200-lb. and 1-lb. lots, dlvd.:

Black, D&C, No. 1	lb.	10.50	-10.95
Brown, D&C, No. 1	lb.	15.65	-16.10
Green, D&C, No. 5	lb.	15.65	-16.10
No. 6	lb.	15.65	-16.10
No. 7	lb.	14.35	-14.80
Orange, D&C, No. 3	lb.	10.50	-10.95
No. 4	lb.	19.60	-20.05
No. 5	lb.	3.80	- 4.25
Red, D&C, No. 17	lb.	10.50	-10.95
No. 18	lb.	23.60	-24.00
No. 19	lb.	15.00	-15.45
No. 21	lb.	3.90	- 4.35
No. 22	lb.	10.50	-10.95
No. 28	lb.	24.15	-24.65
No. 33	lb.	17.00	-17.45
Violet, D&C, No. 2	lb.	15.65	-16.10
Yellow, D&C, No. 7	lb.	10.50	-10.95
No. 8	lb.	10.50	-10.95
No. 10	lb.	13.05	-13.50
No. 11	lb.	13.05	-13.50

Dyes, coaltar, certified colors for drugs and cosmetics, external use, 500-lb. and 1-lb. lots, dlvd.:

Blue, Ext., D&C, No. 1	lb.	15.65	-16.10
Green, Ext., D&C, No. 1	lb.	15.65	-16.10
Red, Ext., D&C, No. 1	lb.	13.05	-13.50
Yellow, Ext, D&C, No. 1	lb.	10.50	-10.95

Dyes, coaltar for general use in cloth dyeing (numbers are those of the Color Index scale or prototype), contract dlvd. No.

11110 Brilliant scarlet BN	lb.	1.79	—
13390 Fast blue SR	lb.	1.43	—
14025 Yellow 2G	lb.	1.26	—
14030 Orange R, extra, conc.	lb.	1.64	—
14645 Chrome black T	lb.	.77	—
14720 Rubine XX, conc.	lb.	1.59	—

Dyes, coaltar for general use in cloth dyeing numbers are those of the Color Index scale or prototype), contract dlvd. No.

15510 Orange Y, extra conc.	lb.	.83	—
15575 Orange RR	lb.	.99	—
15620 Fast Red A, conc	lb.	1.61	—
15705 Chrome blue black R, conc.	lb.	1.12	—
16150 Scarlet 2RL	lb.	1.22	—
16255 Brilliant scarlet 3RN, conc.	lb.	1.26	—
16230 Fast light, orange 2G	lb.	1.39	—
17590 Brown PG	lb.	3.00	—
18050 Phloxine 2G	lb.	1.05	—
18055 Fuchsine 6B	lb.	1.55	—
18965 Fast yellow 2G	lb.	2.32	—
19140 Yellow XX	lb.	2.48	—
19555 Yellow NN, conc.	lb.	3.67	—
20170 Brown Y	lb.	1.33	—
20470 Blue black, extra, conc.	lb.	1.44	—
21010 Brown, RX, conc.	lb.	1.35	—
22240 Scarlet B	lb.	2.81	—
22310 Red FC	lb.	1.57	—
22311 Brown MCW	lb.	1.47	—
22610 Blue 2B, extra conc.	lb.	1.53	—
23500 Red, 4BX, conc.	lb.	1.80	—
24410 Sky blue FF, extra, conc.	lb.	1.95	—
24895 Brilliant yellow, conc.	lb.	3.27	—
26360 Navy blue 3R, conc.	lb.	1.84	—
26695 Black F, conc.	lb.	2.30	—
26900 Milling Red 3R, conc	lb.	2.24	—
27075 Neutral black 2B, conc.	lb.	2.75	—
27720 Gray L	lb.	2.18	—
29185 Fast scarlet 4BNC	lb.	2.23	—
30015 Diazo black VJ conc.	lb.	2.48	—
30045 Yellow brown K, extra	lb.	1.26	—
30235 Black EB, 200%	lb.	1.33	—
30295 Green BY, conc.	lb.	1.07	—
35660 Brown B	lb.	2.89	—
37565 Naphthol SWF	lb.	1.85	—
40000 Yellow 2G	lb.	1.44	—
41000 Yellow OX	lb.	2.45	—
42000 Green V, crystals	lb.	2.73	—
42040 Brilliant green G crystals	lb.	3.62	—
42090 Blue EG	lb.	1.85	—
42100 Milling green 6B, conc.	lb.	4.78	—
42640 Violet 4BXN	lb.	2.43	—

Working Chemical Magic

Celanese acrylates—versatile family of chemicals—are the magic ingredients in countless new and better produ
Acrylic coatings, for example, eliminate the need for priming metal surfaces before painting . . .
acrylic-based floor polishes give clear, scuff-proof finishes. And Celanese acrylates are improving fibers,
plastics, paper, adhesives, and many other products. Uses for acrylates are among the fastest growing
in the chemical field. Industry consumption has more than doubled in the past four years . . . with
new applications boosting the sales curve higher. Capacity of the Celanese, Texas plant will soon be doubled
. to provide an annual capacity of 30-million pounds of methyl, ethyl, 2-ethylhexyl, and butyl acrylates. For
technical data, please write to: Celanese Chemical Company, 180 Madison Avenue, New York 16, N. Y.

Celanese®

From this basic formula springs the magic-working Celanese family of acrylic acid—
methyl, ethyl, 2-ethylhexyl, and butyl acrylates.

Dyes, coaltar for general use in cloth dyeing (numbers are those of the Colour index scale of prototype), contract, dlvd. No.

43830 Brilliant blue, BBG.....lb. 2.44 • —
44045 Blue B, extra conc. .....lb. 3.61 • —
45170 Red BX .....lb. 4.76 • —
50415 Nigrosine SSJ .....lb. 1.03 • —
52015 Blue GXX .....lb. 2.33 • —
58005 Alizarin red SC .....lb. 3.64 • —
59700 Golden orange GFD, single paste..lb. 2.70 • —
59710 Flaming orange 6RD double powder..lb. 4.90 • —
59800 Dark blue BO, single paste. lb. 2.28 • —
59825 Jade green NC supra, double paste..lb. 1.50 • —
61570 Alizarin green CG, extra lb. 3.81 • —
63010 Alizarin blue SAPG ....lb. 3.90 • —
63615 Alizarin blue black B....lb. 3.26 • —
69825 Blue BLFD double paste lb. 2.82 • —
70800 Brown BR single paste..lb. 2.03 • —

Dyes, coaltar, oil-soluble, 100-lb. drums, dlvd. No.

12140 Oil scarlet BL .....lb. 1.87 • —
12055 Oil orange 7078 V .....lb. 1.38 • —
26120 Oil red N 1700 .....lb. 1.94 • —
42535B Methyl violet base.....lb. 1.88 • —
44045B Victoria blue base ....lb. 4.06 • —
50415B Oil black 8603 .....lb. .80 • —
61565 Alizarin cyanine green base. lb. 6.13 • —
Spirit black RB .....lb. 3.89 • —
Spirit brown GN .....lb. 5.30 • —
Spirit orange R conc. ....lb. 5.87 • —
Spirit red B conc.....lb. 6.41 • —

Dyes, coaltar, oil-soluble, 100 lb. drums, dlvd. No.

Pr. 517 Spirit yellow 2R conc..lb. 4.62 • —
Pr. 554 Spirit blue THN.....lb. 5.06 • —

E

Echinacea root, bls. .....lb. 1.25 • —
Elm bark, grinding, bls. .....lb. .50 • .55
Powd., bbls., bxs.....lb. .60 • .65
Select, bundles.....lb. .75 • —
Emetine hydrochloride, USP, bots. oz.43.40 • —
Endrin, tech., dms., 100-lbs. or more, 100% basis, dlvd..lb. 2.70 • —
Eosin red toner, bbls., works....lb. 1.95 • —
Ephedrine, syn., USP, anhyd., bots. 100-oz. lots..oz. .98 • 1.00
hydrous, bots., 100-oz. lots. oz. .92 • —
Ephedrine hydrochloride, NF, dms., 100-oz. f.o.b. works..oz. .72 • —
Ephedrine sulfate, USP, cryst., dms., 100-oz. f.o.b. works..oz. .73 • —
USP, powd., dms., 100-oz., same basis..oz. .73 • —
Epichlorohydrin, dms., c.l., dlvd..lb. .29½- —
dms., l.c.l., dlvd. .....lb. .31 • —
tanks, dlvd. .....lb. .27 • —
l-Epinephrine base, syn., USP, bots., 100 gram lots..gram. .58 • —
Epsom salt (see Magnesium sulfate).
Erigeron oil, cns. .....lb.11.00 • —
Ergot, NF, dms., tin-lined .....lb. 1.00 • 1.25
Eserine salicylate, bots. .....oz.44.00 • —
Eserine sulfate, bots. .....oz.86.00 • —
Ester gum, gum-rosin type, dms., c.l., dlvd., Ill., Md., Ky., E. States, Minneapolis, N. C., Ohio, St. Louis, St. Paul, Va., W. Va..lb. .18½- —
Wood-rosin type, dms., c.l., same basis..lb. .18½- —
Ether (see specific product).

Ethyl acetate, nat., ferment, 85-88%, dms., c.l., dlvd..lb. .15 • —
dms., l.c.l., dlvd. .....lb. .16½- —
tanks, dlvd. .....lb. .12½- —
85-98%, dms., c.l., dlvd. ..lb. .15¼- —
dms., l.c.l., dlvd. .....lb. .16¾- —
tanks, dlvd. .....lb. .12¾- —
Ethyl acetate, nat., ferment, 99%, dms., c.l., dlvd..lb. .15½- —
dms., l.c.l., dlvd. .....lb. .17 • —
tanks, dlvd. .....lb. .13 • —
syn., 85-88%, dms., c.l., dlvd..lb. .15 • —
dms., l.c.l., dlvd. .....lb. .16½- —
tanks, dlvd. .....lb. .12½- —
Ethyl acetate, syn., 95-98%, dms., c.l., dlvd..lb. .15¼- —
dms., l.c.l., dlvd.....lb. .16¾- —
tanks, dlvd. .....lb. .12¾- —
99%, dms., c.l., dlvd. .....lb. .15½- —
dms., l.c.l., dlvd. .....lb. .17 • —
tanks, dlvd. .....lb. .13 • —
Ethyl acetoacetate, dms., c.l., dlvd. lb. 58½- —
dms., l.c.l., dlvd. .....lb. .60 • —
tanks, dlvd. .....lb. .56 • —
Ethyl acrylate, dms., c.l., t.l., dlvd. lb. .36 • —
dms., l.t.l., dlvd. .....lb. .37 • —
tanks, dlvd. .....lb. .34 • —
Ethyl alcohol, 190 pf., USP, tax paid dms, c.l., dlvd. E. of Rockies..gal.20.63 • —
dms., l.c.l., same basis..gal.20.73 -20.84
Ethyl alcohol, 190 pf., USP, tax-free, dms., c.l., dlvd. E. of Rockies..gal. .68 • —
dms., l.c.l., same basis..gal. .78 • .89
tanks, same basis.....gal. .52 • —
Ethyl alcohol, absolute, 200 pf., tax paid, dms., dlvd. E. of Rockies..gal.21.75 • —
dms., l.c.l., same basis..gal.21.85 -21.96
tanks, same basis.....gal.21.59 • —
Ethyl alcohol, denatured (see Denatured alcohol, ethyl).
Ethyl aminobenzoate, USP (see Benzocaine).
Ethyl amyl ketone, dms., c.l., dlvd. lb. .20 • —
dms., l.c.l., same basis .....lb. .21½- —
tanks, same basis .....lb. .17½- —
Ethyl benzoate, bots. .....lb. .75 • 1.00
Ethyl bromide, tech., 98%, dms., c.l., frt. alld. E..lb. .43 • —
dms., l.c.l., frt. alld. E....lb. .45 • —
tanks, frt. alld. E.....lb. .41 • —
Ethyl butyl ketone, dms., c.l., t.l., works lb. .36 • —
dms., l.c.l., l.t.l., works.....lb. .36¾- —
tanks, works .....lb. .34 • —
Ethyl butyrate, dms., works.....lb. .85 • 1.00
Ethyl carbamate (see Urethane).
Ethyl cellulose, vis. 7 cps., bgs., 5,000-lb. lots or more, frt. alld. E. lb. .73 • —
bgs., smaller lots, frt. alld. E lb. .75 • —
Vis 10, 20, 50, 100, 150 cps., bgs., 5,000-lb. lots or more, frt. alld. E lb. .68 • —
bgs., smaller lots, frt. alld E. lb. .70 • —
Ethyl chloride, tech., cyls., works. lb. .20 • 22
dms., works .....lb. .18 • .20
tanks, works .....lb. .10 • —
Ethyl cinnamate cns. .....lb. 3.35 • 3.50
Ethyl ethanolamies, mixed, dms., c.l., dlvd. E..lb. .43½- —
dms., l.c.l., dlvd. E.....lb. .44½- —
tanks, dlvd. E. .....lb. .41½- —
Ethyl ether, absolute, ACS, dms. lb. .2[illegible] • —
Anesthesia, USP, dealers, 1-lb. cns. lb. 1.01 • —
½-lb. cns .....lb. 1.09 • —
¼-lb. cns. .....lb. 1.21 • —
Indust., dms., c.l., dlvd. .....lb. .13½- —
dms., l.c.l., dlvd. E. .....lb. .15 • —
tanks, dlvd E. .....lb. .11 • —
2-Ethyl hexoic acid, dms., c.l., t.l., dlvd. E lb. .37 • —
dms., l.c.l., l.t.l., dlvd. E.....lb. .38½- —
tanks, dlvd. E. .....lb. .34½- —
2 Ethyl hexoic acid, 1c. higher W. of Rockies.
2-Ethyl hexyl acrylate, dms., c.l. t.l., straight or mixed frt. alld. E lb. .42½- —
dms., l.t.l., same basis.....lb. .43½- —
tanks, same basis.....lb. .40 • —
Prices of 2-ethylhexyl acrylate are 1½c. per lb. higher in Ariz., Calif., Idaho, Nev., Ore., Utah and Wash.
2-Ethylhexyl alcohol, dms., c.l., dlvd. lb. .23¾- —
dms., l.c.l, dlvd.....lb. .25¼- —
tanks, dlvd. .....lb. .21¼- —
Ethyl iodide, cbys., works.....lb. 3.30 • —
Ethyl methacrylate, dms., c.l., frt. equaid. lb. .52 • —
dms., l.t.l., frt. equaid.....lb. .52½- —
tanks, frt. equaid.....lb. .50 • —
Ethyl morphine hydrochloride, USP, bots. oz.11.85 • —
Ethyl oenanthate, dms.....lb. 1.05 • 1.30
Ethyl oxalate (see Diethyl oxalate).
Ethyl silicate, dist. (see Tetraethyl orthosilicate).
Ethyl silicate, 40% available SiO, dms., c.l., dlvd..lb. .44½- —
dms., l.c.l., dlvd.....lb. .46 • —
tanks, dlvd.....lb. .42 • —
N-Ethyl-a-naphthylamine, dms., works. lb. 1.04 • —
N-Ethyl-m-toluidine, tech., liq., tanks, frt. alld. lb. .83 • —
N-Ethyl-o-toluidine, bbls.....lb. .88 • —
Ethylamine (see Mono-, Di-, or Tri-)
N-Ethylaniline, dms., c.l., frt. alld. lb. .57 • —
dms., l.c.l., frt. alld.....lb. .58 • —
tanks, frt. alld.....lb. .55 • —
Ethylbenzene, 99%, dms., c.l., t.l., frt. equaid..lb. .15 • —
dms., l.c.l., same basis.....lb. .17 • —
tanks, same basis.....lb. .12½- —
2-Ethylbutyl alcohol, dms., c.l., works..lb. .30 • —
dms., l.c.l., works.....lb. .30¾- —
tanks, works.....lb. .28 • —
Ethylene, contract, refy. gate....lb. .0475- .0525
Ethylene dibromide, dms., c.l., frt. equaid..lb. .30½- —
dms., l.c.l., frt. equaid.....lb. .31½- —
tanks, frt. equaid.....lb. .28½- —
Ethylene dichloride, dms., c.l., dlvd. lb. .11½- —
dms., l.c.l., same basis.....lb. .13 • —
tanks, same basis.....lb. .09 • —
Ethylene dichloride prices W. of Rockies, 1c. per lb. higher.
Ethylene glycol, indust., dms., c.l., dlvd. E..lb. .16 • —
dms., l.c.l., same basis.....lb. .17½- —
tanks, same basis.....lb. .13½- —
Ethylene glycol monobutyl ether, dms., c.l., dlvd. E..lb. .22 • —
dms., l.c.l., dlvd. E.....lb. .23½- —
tanks, dlvd. E.....lb. .19½- —
Ethylene glycol monoethyl ether, dms., c.l., dlvd. E..lb. .21 • —
dms., l.c.l., dlvd. E.....lb. .22½- —
tanks, dlvd. E.....lb. .18½- —
Ethylene glycol monoethyl ether acetate, dms., c.l., dlvd. E..lb. .19½- —
dms., l.c.l., dlvd. E .....lb. .20½- —
tanks, dlvd. E.....lb. .17 • —
Ethylene glycol monomethyl etner, dms., c.l., dlvd. E..lb. .21 • —
dms., l.c.l., dlvd. E.....lb. .22½- —
tanks, dlvd. E.....lb. .18½- —
Ethylene glycol monomethyl ether acetate, dms., c.l., dlvd. E..lb. .29 • —
dms., l.c.l., dlvd. E.....lb. .29¾- —
tanks, dlvd. E .....lb. .27 • —
Ethylene glycol monostearate, tripie pressed, dms..lb. .33 • .35
Ethylene oxide, dms., c.l., dlvd. E. lb. .21½- —
dms., l.c.l., dlvd. E .....lb. .24½- —
tanks, dlvd. E.....lb. .15½- —
Ethylene trichloride (see Trichloroethylene).
Ethylenediamine, 85-88%, dms., c.l., dlvd. E., 100% basis lb. .42 • —
dms., l.c.l., dlvd. E., 100% basis. lb. .43 • —
tanks, dlvd. E., 100% basis lb. .40 • —
lots and over..lb. 6.75 • —
200-lb. lots and over.....lb. 7.00 • —
100-lb. lots and smaller.....lb. 7.30 • 7.40
Ethyl vanillin, 100-lb. fib. dms., 500-lb..lb. 5.65 • —
less than 500-lb.....lb. 6.10 • —

Celanese Acrylates

Celanese Chemical Company is a Division of Celanese Corporation of America.
Canadian Affiliate: Canadian Chemical Company Limited, Montreal, Toronto, Vancouver.
Export Sales: Amcel Co., and Pan Amcel Co., Inc., 180 Madison Avenue, New York 16, N. Y.

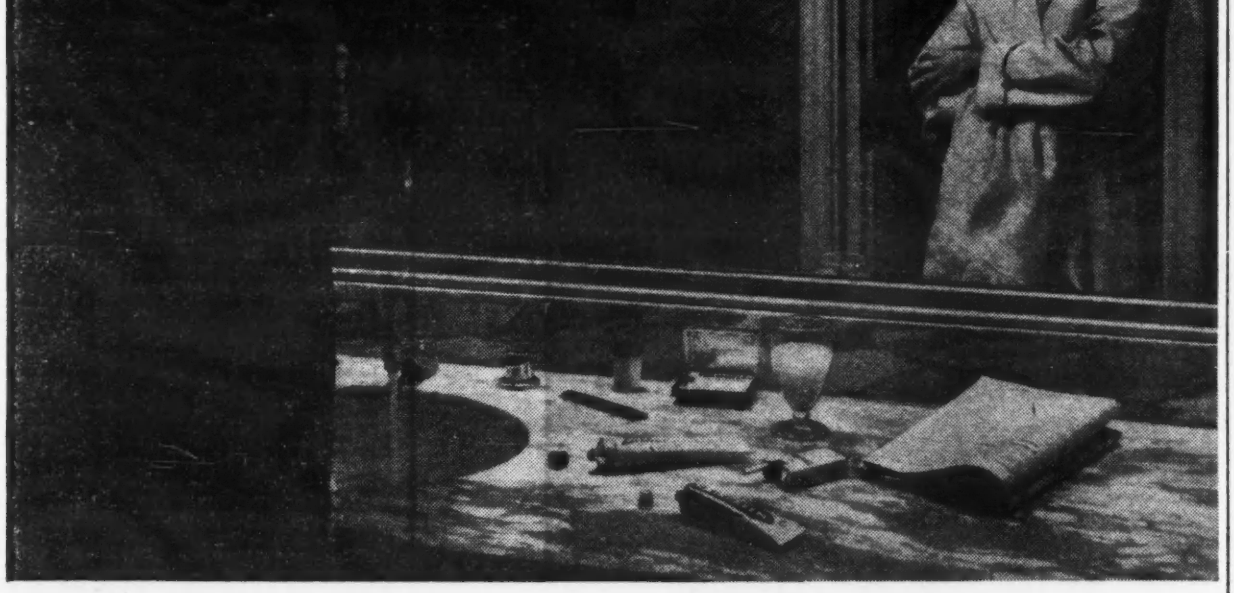
Eucalyptol, USP, cns., dms ... lb. .85 - 1.40
Eucalyptus oil, NF, rectified, 70-75%, dms. lb. .45 - —
NF, rectified, 80-85%, dms. lb. .53 - .62
Eugenol, tech., dms ... lb 1.45 - —
USP, dms. ... lb. 2.00 - —
Euphorbia herb, bls ... lb. .12 - .15

F

F salt paste, tech, dms., works lb 2.30 - —
Feldspar, 140-200 mesh, bulk, c.l., works ton.19.50 - —
Feldspar in bags $3 per ton higher.
Fennel oil, sweet, USP, cns ... lb. 1.95 - 2.25
Fennel seed, Argentine, bgs ... lb. .16 - —
French, light, bgs ... lb. .16 - —
Indian, light, bgs ... lb. .17½- —
Rumanian, bgs ... lb. .14 - —
Yugoslav, light, bgs ... lb. .16½- —
Fenugreek seed, Moroccan, bgs lb. .08 - —
Ferric chloride, anhyd., tech., dms., c.l., works 100 lbs. 7.50 - —
dms., l.c.l., works 100 lbs. 8.50 - —
Ferric chloride, indust., cryst., bbls., c.l., works 100 lbs. 5.25 - 6.75
bbls., l.c.l., works 100 lbs. 5.75 - 7.25
42° Be., photo grade, cbys., c.l., works 100 lbs. 7.25 - 8.25
sewage grade, tanks, frt. equald, 100% basis 100 lbs. 4.00 - —
USP, cryst., dms., t.l., works lb. .08½- —
Ferric citrate gran., dms ... lb. .85 - —
Ferric hypophosphite, NF, dms lb. 3.45 - —
Ferric naphthenate, liq., 6% Fe, dms., frt. alld lb. .28¼- —
Ferric oxalate, tech., gran., 50-lb. dm., f.o.b. works E lb. .89 - —
Ferric oxides (see iron oxides).
Ferric phosphate, NF, soluble, gran. pearls, cs. lb. .72 - .75
Ferric pyrophosphate, NF VII, soluble, gran., pearls, dms.lb. .70 - —
Ferric resinate, 6¾% Fe., dms., ton lots, frt. ald. lb. .40¼- —
Ferric stearate, dms., c.l., frt. alld. lb. .39 - —
dms., l.c.l., frt. alld ... lb. .40 - .44
Ferric sulfate, partly hydrated, bgs., c.l., works ton.35.25 - —
bgs., l.c.l., works ... ton.36.25 -42.25
bulk, c.l., works ... ton.33.25 - —
Ferric-ammonium citrate, brown, pearls, NF, gran., dms lb. .65 - .68
Green pearls, USP XII, gran., dms lb. .66 - .69
Ferric-ammonium oxalate, fine gran., dms lb. .27½- .29½
Ferric-potassium oxalate, fine gran., dms lb. .32½- .34½
Ferric-sodium oxalate, fine gran., dms lb. .27½- .29½
Ferrous gluconate, USP, 200-lb. dm., frt. equald lb. .96 - —
Ferrous sulfate, gran., bgs., c.l., works ton.34.50 - —
bgs., l.c.l., dlvd. Metropolitan area 100 lbs. 3.35 - 4.25
bbls., c.l., works ... ton.40.00 - —
bulk, c.l., works ... ton.27.00 - —
USP, cryst., bbls., dms ... lb. .09½- .10
Fir balsam, Canada, bbls ... gal.32.00 -35.00
Oregon, bbls. ... gal. 3.40 - 4.64
Fir oil, Canada, cns ... lb. 1.75 - 2.50
Fish oil, refd., alkali, dms ... lb. .1250- .1300
Kettle-bodied, dms. ... lb. .1460- .1530
Light-pressed, dms. ... lb. .1100- .1150
tanks ... lb. .09½- —
Fishliver oil, nat., high potency, 100,000 to 1,500,000 A units per gram, dms 1,000,000 units. .12 - —
Fishmeal, dom., menhaden, 60% protein, grd., bgs., Atlantic and Gulf coasts ton.92.00 - —
Fishscrap, dom., menhaden, dried, 60% protein, grd., bgs., Atlantic and Gulf coasts. ton.88.00 - —
Fleaseed (see Psyllium seed).
Folic acid, USP, bots., fib. dms., kilo lots or more gram. .30 - .44
10% feed grade, fib dms., 3 kilos or more kilo.30.00 -44.00
Formaldehyde, 37% (inhibited, 12 to 15% methanol), USP, dms., c.l., dlvd lb. .0695- —
tanks, dlvd. ... lb. .0430- —
Formaldehyde, methanol-free (uninhibited), tanks, dlvd lb. .0375- —
Formic acid, 85%, cbys., c.l., works. lb. .1570- —
cbys., l.c.l., works ... lb. .1620- .1720
90%, cbys., c.l., works ... lb. .1625- —
cbys., l.c.l., works ... lb. .1675- .1775
Fringetree bark, bls ... lb. .65 .70
Fumaric acid, tech., 250-lb. dms., c.l., frt. equald lb. .23½- —
dms., l.c.l., frt. equald ... lb. .24¾- —
Fumaric acid in bags ½c. per lb. less.
Furfural, dms., c.l., works ... lb. .13 - —
dms., l.c.l., works ... lb. .14 - —
tanks, dlvd. E ... lb. .11½- —
tanks, dlvd. W ... lb. .12½- —
Furfuryl alcohol, cns., works ... lb. .38 - —
dms., c.l., t.l., Newark, N. J ... lb. .20½- —
dms., l.c.l., l.t.l., Newark, N. J ... lb. .21½- —
dms., c.l., t.l., Memphis, Tenn ... lb. .19 - —
dms., l.c.l., l.t.l., Memphis, Tenn. lb. .20 - —
tanks, Memphis, Tenn. ... lb. .175 - —
Fusel oil, refd., dms., c.l., dlvd lb. .18 - —
dms., l.c.l., dlvd. ... lb. .19½- —
tanks, dlvd. ... lb. .15½- —

G

G salt, bbls., frt. alld., 100% basis lb. .73 - —
Gallic acid, NF, VII, bbls., 1,000-lb. lots lb 2.00 - —
bbls., smaller lots ... lb 2.02 - 2.23
Tech., bbls., 1,000-lb. lots ... lb. 1.78 - —
bbls., smaller lots ... lb. 1.80 - 2.00
Gamma acid, dry grd., bbls., frt. alld lb. 1.75 - —
Gammapicoline (see g-picoline).
Garlic oil, dom., bots. ... oz. 4.75 - 6.05
Imp., bots. ... oz. 4.50 - 5.00
Gaultheria oil (see Wintergreen oil).
Gelatin, edible 75 AOAC test, bbls., c.l., dlvd lb. .55 - —
150 AOAC test, bbls., c.l., dlvd. lb. .64 - —
200 AOAC test, bbls., c.l., dlvd. lb. .70 - —
225 AOAC test, bbls., c.l., dlvd. lb. .74 - —
275 AOAC test, bbls., c.l., dlvd. lb. .82 - —
Gelsenium root, bls. ... lb. .30 - .35
Gentian root, bls. ... lb. .24 - —
Grd., bbls., bxs ... lb. .30 - —
Powd., bbls., bxs. ... lb. .30 - —
Geraniol, extra, cns., dms. ... lb 1.75 - 2.40
Soap grade, dms ... lb .90 - 1.75
Standard, cns., dms. ... lb. 1.65 - —
Synthetic, dms. ... lb 1.30 - —
Geranium oil, Algerian, cns ... lb 23.00 - —
Bourbon, cns ... lb 28.00 - —
Geranium oil, Turkish (see Palmarosa oil).
Geranyl acetate, cns. ... lb 1.90 - 2.70
Synthetic, dms ... lb 1.45 - —
Ginger oil, dist., bots. ... lb 11.50 -14.00
Ginger oleoresin, NF, from African root, bots lb. 4.25 - 5.00
NF, from Jamaican root, bots. lb. 7.75 - —
Ginger root, Cochin, bgs ... lb. .29 - —
Jamaican, No. 3, bgs ... lb. .38 - —
Nigerian, split, bgs. ... lb. .20 - —
Sierra Leone, bgs. ... lb. .35½- —
Glauber's salt (see Sodium sulfate).
Gluconic acid, tech., 50%, dms., c.l., t.l., f.o.b. works lb. .20 - —
dms., l.c.l., f.o.b. works lb. .21 - —
tanks, f.o.b. works ... lb. .17 - —
Glue, bone, extracted, dry bone, 86 jellygrams, bgs., c.l., dlvd. lb. .16 - —
131 jellygrams, bgs., c.l., same basis lb. .16½- —
164 jellygrams, bgs., c.l., same basis lb. .18½- —
191 jellygrams, bgs., c.l., same basis lb. .19½- —
222 jellygrams, bgs., c.l., same basis lb. .21 - —
Glue, bone, green, 40 jellygrams, bgs., c.l., same basis lb. .16 - —
86 jellygrams, bgs., c.l., same basis lb. .16 - —
115 jellygrams, bgs., c.l., same basis lb. .16½- —
Glue, bone, green, 135 jellygrams, bgs., c.l., same basis lb. .17½- —
164 jellygrams, bgs., c.l., same basis lb. .18½- —
180 jellygrams, bgs., c.l., same basis lb. .19½- —
200 jellygrams, bgs., c.l., same basis lb. .20½- —
Bone glue, l.c.l., prices 2c. higher.
Glue, hide, 70-94 jellygrams, bgs., c.l., dlvd lb. .18 - —
95-149, bgs., c.l., dlvd ... lb. .19 - —
122-149, bgs., c.l., dlvd ... lb. .20½- —
150-177, bgs., c.l., dlvd ... lb. .22½- —
178-206, bgs., c.l., dlvd ... lb. .25 - —
Glue, hide, 207-236, bgs., c.l., dlvd lb. .28 - —
237-266, bgs., c.l., dlvd ... lb. .30½- —
267-298, bgs., c.l., dlvd ... lb. .32½- —
299-330, bgs., c.l., dlvd ... lb. .34½- —
331-362, bgs., c.l., dlvd ... lb. .36½- —
363-394, bgs., c.l., dlvd ... lb. .38 - —
395-427, bgs., c.l., dlvd ... lb. .40 - —
428-460, bgs., c.l., dlvd ... lb. .42 - —
461-494, bgs., c.l., dlvd ... lb. .44 - —
495-529, bgs., c.l., dlvd ... lb. .46 - —
Hide glue, l.c.l., prices 2c. higher.
l-Glutamic acid, 99½%, fib. dms., 100-lb. lots, frt. alld lb. 1.80 - —
fib. dms., 25-lb. lots, frt. alld. lb. 1.88 - —
l-Glutamine, bots., 1-9 kilo lots, kilo.150.00 -300.00
Bots., 50-kilo lots ... kilo.100.00 - —
Bots., 500-kilo lots ... kilo. 75.00 - —
Glycerine, dom., nat., crude, saponification, 88%, tanks, dlvd. lb. .20 - —
nat., crude, soaplye, 80%, tanks, dlvd lb. .18 - .18¼
nat., refd., USP, CP, 99%, dms., c.l., dlvd lb. .30⅛- —
dms., l.c.l., dlvd. ... lb. .31⅛- —
tanks, dlvd. ... lb. .29⅛- —
Glycerine, dom., nat., refd., USP, CP, 96%, dms., c.l., dlvd lb. .30 - —
dms., l.c.l., dlvd. ... lb. .30¾- —
tanks, dlvd. ... lb. .28¼- —
nat., high gravity, dms., c.l., dlvd lb. .30¾- —
dms., l.c.l., dlvd. ... lb. .31½- —
tanks, dlvd. ... lb. .29 - —
Glycerine, dom., syn., dms., c.l., dlvd lb. .31 - —
dms., l.c.l., dlvd. ... lb. .31¾- —
tanks, dlvd. ... lb. .29¼- —
Imp., nat., crude, soaplye, 80%, c.i.f. lb. .17½- —
Glycine (see Aminoacetic acid).
Glycerol (see Glycerine).
Glycolic acid (see Hydroxyacetic acid).
Glycolonitrile, 70%, aqueous, dms., c.l., t.l., works lb. .40 - —
dms., l.c.l., same basis ... lb. .42 - —
tanks, same basis ... lb. .39 - —
Glyoxal, 30%, dms., c.l., works lb. .20½- —
dms., l.c.l., works ... lb. .21¼- —
tanks, works ... lb. .18 - —
Golden seal root, NF, tested, bls. lb. 3.10 - —
Gramicidin, 1 to 5 kilos, f.o.b. works, gram. 4.70 - —
Grapefruit oil, dms. ... lb. 4.50 - —
Graphite, amorp., powd., bgs., fib. dms., ex whse lb. .06 - .09½
Cryst., 88-90%, powd., bgs., fib. dms., ex whse lb. .19 - .21¼
90-92%, powd., bgs., fib. dms., ex whse lb. .21 - .24¼
95-97%, powd., bgs., fib. dms., ex whse lb. .29 - .31½
Flake, No. 1, 90-95%, bgs., fib. dms., ex whse lb. .29 .31
No. 2, 90-95%, bgs., fib. dms., ex whse lb. .29 - .31
Grease, white, choice all hog, tanks, dlvd. lb. .07¼- —
Yellow, tanks, dlvd. ... lb. .04¾- .04⅞



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JEFFERSON CHEMICALS

Grease oil, No. 1, dms., c.l.	lb.	.13¾-	—
dms., l.c.l.	lb.	.14¾-	.15¾
Extra winter, strained, dms., c.l.	lb.	.16¼-	—
dms., l.c.l.	lb.	.17¼-	.18¼
Prime, burning, dms., c.l.	lb.	.17¾-	—
dms., l.c.l.	lb.	.18¾-	.19¾

GREEN PIGMENTS

Green pigment quotations are listed individually. For example, prices on Green, chrome, may be found in the C's under Chrome green.

Grindelia robusta herb, bls.	lb.	.40	—
Guaiacol, NF, cryst., dms., tins	lb.	2.10	2.15
NF liq., cbys., dms.	lb.	2.30	2.40
Guaiacwood oil, cns.	lb.	.65	.80
Guaiacol carbonate, NF VII, dms	lb.	3.40	3.45
Guar gum, food grade, bgs., c.l.	lb.	.38	—
bgs., 5,000 lbs or more	lb.	.39	—
Indust., bgs., c.l.	lb.	.32	—
Tech grade, bgs.	lb.	.30	.33

GUMS

Gum quotations are listed individually. For example, prices on Gum, Dammar, may be found in the D's under Dammar gum.

H

H acid, dry, bbls., c.l., frt. alld., 100% basis	lb.	.90	—
bbls., l.c.l., same basis	lb.	.95	—
Hansa yellow, 10 G, bbls., dlvd. E. of Rockies	lb.	2.45	—
Hansa G yellow, pigment, bbls.	lb.	2.20	—
Hawthorn berries, bgs.	lb.	.18	.20
Heliotropin, 100-lb. lots, dms.	lb.	2.60	3.40
Hellebore root, dom., green, bls.	lb.	.70	.75
Helonias root, bls.	lb.	1.50	—
Hemlock oil, cns.	lb.	2.35	3.00
Henbane leaves, bls.	lb.	.40	.45
Heptachlor, dms., c.l., t.l., frt. alld., 100% basis	lb.	.96	—
Heptane, indust., tankcars, New Jersey and New York	gal.	.20	—
Houston, Texas	gal.	.1625	—
Hesperidin, purif., 100-lb. fib. dms., f.o.b., works	lb.	8.95	—
Hesperidin methylchalcone, bots., 50-lb. lots, works	lb.	22.50	—
bots., 5-lb. lots, works	lb.	23.00	—
bots., 1-lb. lots, works	lb.	23.50	—
Hexachlorophene, dms., 1,100 lbs. or more	lb.	1.84	—
dms., to 1,100 lbs.	lb.	1.94	—
Hexalin (see Cyclohexanol).			
Hexamethylenetetramine, tech., bgs., 20,000-lb. lots or more, Perth Amboy or New York City	lb.	.233	—
Hexamethylenetetramine, tech., bgs., 1,000-19,999-lb. lots, same basis	lb.	.243	—
bgs., smaller lots, same basis	lb.	.253	—
fib. dms., 1,000-lb. lots or more, same basis	lb.	.250	—
fib. dms., smaller lots, same basis	lb.	.253	—
Hexamethylenetetramine, USP, bgs., 500 lbs. or more, f.o.b. Fords, N. J., dlvd. New York City and Philadelphia	lb.	.42½-	—
bgs., smaller lots, same basis	lb.	.43½-	.48½
Hexane, industrial, tankcars, New Jersey and New York	gal.	.20	—
Houston, Texas	gal.	.16	—
l-Hexanol, dms., c.l., works	lb.	.35	—
dms., l.c.l., works	lb.	.35¾-	—
tanks, works	lb.	.33	—
Hexyl cinnamic aldehyde, dms.	lb.	4.00	7.50
n-Hexyl methacrylate, dms., c.l., works	lb.	.75½-	—
dms., l.c.l., works	lb.	.76	—
Hexyl salicylate, dms.	lb.	1.75	—
Hexylene glycol, dms., c.l., dlvd.	lb.	.17½-	—
dms., l.c.l., dlvd.	lb.	.19	—
tanks, dlvd.	lb.	.15	—
Hexylresorcinol, USP, dms., 25-lb. lots or more, dlvd.	lb.	14.00	—
dms., smaller lots, dlvd.	lb.	14.50	—
Homatropine hydrobromide, USP, bots.	oz.	3.25	—
Homatropine methylbromide, USP, bots.	oz.	3.25	—
Hoofmeal, 17-18% ammonia, bulk, c.l., Chicago	unit-ton	6.75	—
Horehound herb, bls.	lb.	.18	.20
Hydrastis (see Goldenseal).			
Hydrazine hydrate, 85% ret. dms., works	lb.	1.35	1.55
100%, ret. dms., works	lb.	1.60	1.90
Hydriodic acid, purif., 47%, 2-cbys., f.o.b. works	lb.	2.92	—
Hydroabietyl alcohol, tech., solid, dms., c.l., dlvd. zone 1	lb.	.29¼-	—
dms., l.c.l., dlvd. zone 1	lb.	.29¾-	.30¼
tanks, dlvd. zone 1	lb.	.27¼-	—
Zone 1 for hydroabieyl alcohol comprises all of continental US except Ariz., Calif., Colo., Idaho, Mont., Nev., N. M., Ore., Utah, Wash., Wyo., and the western part of Texas.			
Hydrobromic acid, medicinal, 48%, cbys., frt. equald	lb.	.48	.56
Hydrochloric acid, anhyd. (see Hydrogen chloride).			
Hydrochloric acid, 18°, cbys., c.l., works 100 lbs.		2.50	—
cbys., l.c.l., dlvd. Metropolitan area 100 lbs.		2.90	3.05
tanks, works, frt. equald	ton	28.00	—
20°, cbys., c.l., works 100 lbs.		2.75	—
cbys., l.c.l., dlvd. Metropolitan area 100 lbs.		3.15	—
tanks, works, frt. equald	ton	30.00	—
Hydrochloric acid, 22°, cbys., c.l., works 100 lbs.		3.25	—
cbys., l.c.l., dlvd. Metropolitan area 100 lbs.		3.65	—
tanks, works, frt. equald	ton	35.00	—
Hydrochloric acid, CP, USP, consumers, cbys., extra, c.l., works	lb.	.15¾-	—
cbys., l.c.l., same basis	lb.	.17¼-	.17¾
Hydrochloric acid, 5-pint bots., extra cs., c.l., same basis.	lb.	.20¾-	—
Hydrocortisone acetate, bulk, bots., kilo lots or more	gram	1.05	1.90
Hydrocortisone alcohol, bulk, bots., kilo lots or more	gram	1.10	1.90
Hydrocyanic acid, dilute, NF, 2%, 5-pt. bots., f.o.b. works	pt.	.70	—
Hydrofluoric acid, anhyd. (see Hydrogen fluoride).			
Hydrofluoric acid, aqueous, 70%, 55-gal. or 30-gal. dms., c.l., t.l., dlvd. 100 lbs.		19.25	—
55-gal. dms., l.c.l., l.t.l., dlvd. 100 lbs.		20.75	—
20-gal. dms., c.l., t.l., dlvd. 100 lbs.		21.00	—
20-gal. dms., l.c.l., l.t.l., dlvd. 100 lbs.		22.50	—
tanks, works frt. equald. 100 lbs.		13.40	—

Delivered prices apply to all states east of Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Washington and Wyoming. In those states add $2.70 per cwt. for drum delivery.

Hydrofluosilicic acid, dms., works, 30% basis	lb.	.06	—
Hydrofuramide, dms., fib. ctns., works	lb.	.30	.40
50-lb. cyls., l.c.l., works	lb.	.55	.60
Hydrogen chloride, anhyd., 50-lb. cyls., l.c.l., works	lb.	.45	—
Hydrogen cyanide, liq., 98%, tanks, works	lb.	.14	—
Hydrogen fluoride, anhyd., cyls., dlvd. E	lb.	.30½-	.32½
cyls., dlvd W.	lb.	.39	—
tanks, works	lb.	.18	—
Hydrogen peroxide, 35%, dms., c.l., dlvd.	lb.	.202	—
dms., l.c.l., dlvd.	lb.	.211	—
tanks, dlvd.	lb.	.1800-	—
Hydroquinone, photo grade, dms., 50-lbs., f.o.b. works	lb.	1.10	—
Tech., dms., c.l., dlvd.	lb.	.82½-	—
dms., l.c.l., dlvd.	lb.	.84½-	—
Hydroquinone monomethyl ether, dms., t.l., dlvd.	lb.	2.59	—
dms., l.t.l., dlvd.	lb.	2.61	—
Hydroxyacetic acid, tech., 70% dms., Philadelphia and Chicago	lb.	.11	—
tanks, Belle, W. Va.	lb.	.073	—
Hydroxycitronellol, cns.	lb.	4.85	5.75
Hydroxyethyl cellulose, add grades, fib. dms., 20,000-lb. lots or more, f.o.b. shipping point	lb.	.84	—
fib. dms., 2,000 to 19,999-lb. lots, same basis	lb.	.89	—
fib. dms., 100 to 1,999-lb. lots, same basis	lb.	.93	—
fib dms., smaller lots, same basis	lb.	1.03	—
Hyoscine salts (see Scopolamine).			
Hyoscyamine hydrobromide, bots.	oz.	7.00	—
Hyoscyamine sulfate, bots.	oz.	7.00	—
Hypophosphorous acid, purif., 50%, 10-cbys., f.o.b. works	lb.	1.93	—
NF, 50%, 10-cbys., same basis	lb.	1.35	—

I

Ichthammol, NF, dms.	lb.	.75	1.05
Indigo (see Dyes, coaltar, 1171 indigo, syn.).			
Indole, CP, bots.	lb.	13.75	15.00
Inositol, 50-100 lb. dms., 1,000 lbs. or more, dlvd.	lb.	4.50	—
Inositol, 50-lb. lbs., less than 1,000 lb., dlvd.	lb.	4.75	—
10 lb. cns., 10-50 lbs., dlvd.	lb.	5.00	—
5 lb. bots., dlvd.	lb.	5.25	—
Insect flowers (see Pyrethrum).			
Iodine, crude, kgs.	lb.	.95	1.10
Resub., USP, dms., f.o.b. works	lb.	2.00	2.02
Iodochlorohydroquinolin, USP, dms.	lb.	3.60	—
Iodoform, NF, dms., 300-lbs., f.o.b. works	lb.	4.90	—
dms., 100-lbs., same basis	lb.	5.05	—
a-Ionone, cns.	lb.	4.60	5.75
b-Ionone, cns.	lb.	4.15	6.15
Ipecac root, whole, bgs.	lb.	8.00	8.50
Powd., bbls., bxs.	lb.	9.50	10.00
Irish moss, bleached, prime, bls.	lb.	.25	.27
Iron blue, alkali-resisting, bbls., c.l., dlvd. E	lb.	.57	—
bbls., l.c.l., ton lots, same basis.	lb.	.58	—
bbls., smaller lots, same basis	lb.	.59	—
Dom., reg., bbls., c.l., dlvd. E	lb.	.52	—
Iron blue, alkali-resisting, dom., reg., bbls., l.c.l., ton lots, same basis	lb.	.53	—
bbls., l.c.l., smaller lots, same basis	lb.	.54	—
Imp., British, reg., bbls., c.l., dlvd. E	lb.	.48	—
bbls., l.c.l., ton lots, same basis	lb.	.49	—
bbls., l.c.l., smaller lots, same basis	lb.	.50	—
Iron blue dlvd. prices 1c. higher for Pacific Coast states: Wash., Ore., Cal., N. M., Ariz., Mont., Wyo., Utah, Col. and Nev.			
Iron compounds (see Ferric or Ferrous).			
Iron oxide, black, pure, bgs., c.l., works	lb.	.14¾-	—
bgs., l.c.l., works	lb.	.15	—
Iron oxide, brown, pure, bgs., c.l., works	lb.	.14¼-	—
bgs., l.c.l., works	lb.	.14½-	—
Iron oxide, metallic, brown, bgs., works	lb.	.05½-	—
Iron oxide, Persian Gulf, red., bgs., c.l., works	lb.	.08¾-	—
Iron oxide, red, dom., pure, bgs., Bethlehem, E. St. Louis, New York City	lb.	.14¼-	—
Iron oxide, red, nat., 75-85% ferric oxide, bgs., c.l., works	lb.	.06¼-	—
bgs., l.c.l., works	lb.	.06½-	—
Iron oxide, Spanish red, bbls., c.l., ex dock	lb.	.05¾	Nom.
bbls., l.c.l., ex dock	lb.	.06	Nom.
bbls., l.c.l., ex whse, New York.	lb.	.06½	Nom.

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You can rest assured that the basic materials—Aromatics and Essential Oils—guaranteed by Heine & Co. are superior to all others on the market,

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Convallol

Its lily-of-the-valley odor gives compositions an extraordinarily natural and long-lasting perfume.

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601 W. 26th St., New York 1, N. Y.

Iron oxide, yellow, nat., French type, bgs., c.l., works lb. .06¾- .07
Peruvian type, bgs., l.c.l. lb. .023 - .024
Iron oxide, yellow, pure, light lemon shade, bgs., c.l., works lb. .12¼- —
other shades, same basis lb. .12 - .12½
Isoamyl alcohol, dms., c.l., works, frt. alld E lb. .27½- —
dms., l.c.l., same basis lb. .29 - —
tanks, same basis lb. .25 - —
Isoborneol, cns. lb. 1.44 - 1.80
Isobornyl acetate, cns. lb. .46 - .56
Isobornyl formate, dms. lb. 1.20 - —
Isobornyl proprionate, dms. lb. 1.25 - 1.35
Isobutyl acetate, perfume grade, cns lb. .35 - —
Isobutyl acetate, solvent grade, dms., c.l., dlvd E. of Rockies lb. .15¼- —
dms., l.c.l., same basis lb. .16¾- —
tanks, same basis lb. .12¾- —
Isobutyl alcohol, dms., c.l., dlvd lb. .15½- —
dms., l.c.l., dlvd. lb. .17 - —
tanks, dlvd. lb. .13 - —
Isobutylene, 99%, tanks, works gal. .38 - —
Isobutyl isobutyrate, dms., f.o.b. works lb. .75 - —
Isobutyraldehyde, CP, dms., c.l., dlvd lb. .27½- —
dms., l.c.l., dlvd. lb. .28½- —
Tech., dms., c.l., dlvd. lb. .22 - —
dms., l.c.l., dlvd. lb. .23 - —
tanks, dlvd. lb. .19½- —
Isobutyronitrile, dms., c.l., dlvd lb. .52 - —
dms., l.c.l., same basis lb. .57 - —
Isobutyric acid, dms., c.l., t.l., dlvd. lb. .35 - —
dms., l.c.l., t.t.l., same basis lb. .36½- —
t.c. t.t., same basis lb. .33 - —

Isoeugenol, cns. lb. 3.40 - 4.25
Isoniazid, powd., bulk, kilo or more kilo. 18.00 - —
Isonicotinic acid, 100-lb. fib. dms., works lb. 4.25 - —
Isonicotinic acid hydrazide (see Isoniazid).
Iso-octyl alcohol, dms., c.l., dlvd. E. lb. .23½- —
dms., l.c.l., dlvd. E. lb. .25 - —
tanks, dlvd. E. lb. .21 - —
Isopentane, com'l. grade, tanks, f.o.b. Tex. refy. gal. .16½- —
Isophorone, dms., c.l., works lb. .24½- —
dms., l.c.l., works lb. .25¼- —
tanks, works lb. .22½- —
Isophthalic acid, dms., c.l., works, frt. equald lb. .18 - —
dms., l.c.l., same basis lb. .19 - —
Isopropanol (see Isopropyl alcohol).
Isopropyl acetate, dms., c.l., dlvd. lb. .14 - —
dms., l.c.l., same basis lb. .15½- —
tanks, same basis lb. .11½- —
Isopropyl alcohol, refd., 91%, dms., c.l., dlvd. gal. .58 - —
dms., l.c.l., dlvd. gal. .68 - —
tanks, dlvd. gal. .42 - —
Isopropyl alcohol, refd., 95%, c.l., dms., dlvd. gal. .60 - —
dms., l.c.l., dlvd. gal. .70 - —
tanks, dlvd. gal. .44 - —
anhyd., c.l., dlvd. gal. .62 - —
dms., l.c.l., dlvd. gal. .72 - —
tanks, dlvd. gal. .46 - —
Isopropyl benzene (see Cumene).

Isopropyl ether, dms., c.l., dlvd. lb. .09½- —
dms., l.c.l., dlvd. lb. .11 - —
tanks, dlvd. lb. .07 - —
Isopropyl-N-(3-chlorophenyl) carbamate (CIPC) tech., dms., c.l., t.l., works lb. 1.00 - —
dms., l.c.l., works lb. 1.05 - 1.25
tanks, works lb. .99 - —
Isopropylamine (see Mono, Di, or Tri-).
Isopropyl-N-phenyl carbamate, 450-lb. fib. dms., c.l., t.l., works lb. .75 - —
450-lb. fib. dms., l.c.l., works lb. .80 - .90
Isoquinoline, dms., works lb. .65 - 1.25
Itaconic acid, refd., bgs., c.l., f.o.b. works lb. .53½- —
bgs., l.c.l., same basis lb. .54½- —
Tech., bgs., c.l., same basis lb. .38½- —
bgs., l.c.l., same basis lb. .39½- —

J

J acid, paste, bbls., works, 100% basis lb. 2.70 - —
Powd., bbls., same basis lb. 2.75 - —
Jalap root, NF, bls. lb. .60 - —
NF, powd., bbls., bxs. lb. .70 - .75
Japan wax, cs. lb. .29 - .31
Juniper berries, bgs. lb. .16 - .17
Juniper berry oil, NF, bots. lb. 2.90 - 3.75
Twice rectified, bots. lb. 3.25 - —
Juniper tar oil, NF, dms. lb. .42 - .60
Juniper wood oil, tech., cns. lb. .38 - .55

K

Kaolin (see also Clay, China).
Kaolin, NF, powd., fib. dms. lb. .10 - .12
NF, colloidal, 50-lb. bgs. lb. .15½- .17½
Karaya gum, No. 1, NF, powd., bls. lb. .48 - .50
No. 2, powd., bbls. lb. .43 - .45
No. 3, powd., bbls. lb. .37 - .40

Koch acid, bbls., frt. alld., 100% basis lb. 1.00 - —
Kola nuts, bgs. lb. .13 - .18

L

L acid, bbls., works lb. 1.25 - —
Lacquer diluent, petroleum, 140°F. 200°F. b.r., tankcars, New Jersey and New York gal. .20 - —
Group 3 gal. .15125- —
Houston, Texas gal. .16 - —
Lacquer diluent, petroleum, 200°F-240°F b.r., tankcars, New Jersey or New York gal. .20 - —
Group 3 gal. .14125- —
Houston, Texas gal. .16 - —
Lactic acid, edible, 50%, bbls. dms., c.l., frt. equald lb. .1985- —
bbls., dms., 20 or more, frt. equald lb. .2035- —
bbls., dms., 5 to 19, frt. equald. lb. .2085- —
bbls., dms., 1 to 4, frt. equald. lb. .2135- —
Lactic acid, edible, 80%, bbls., c.l., dms., frt. equald lb. .3335- —
bbls., dms., 20 or more, frt. equald lb. .3385- —
Lactic acid, edible, 80%, bbls., dms., 5 to 19, frt. equald lb. .3435- —
bbls., dms., 1 to 4, frt. equald. lb. .3485- —
Plastic grade, 50%, c.l., bbls., works lb. .2740- —
bbls., 20 or more, works lb. .2790- —
bbls., 5 to 19, works lb. .2840- —
bbls., 1 to 4, works lb. .2890- —
80%, bbls., c.l., works lb. .4625- —
bbls., 5 to 19, works lb. .4725- —
bbls., 1 to 4, works lb. .4775- —
Tech., 44%, bbls., c.l., works. 100 lbs. 12.45 - —
bbls., l.c.l., works 100 lbs. 12.85 - —
USP, 85%, cbys. lb. .85 - —
Lactose, crystalline, edible, bgs., 23,000-lb. lots, frt. equald lb. .14 - —
bgs., 6,000-lb. lots, frt. equald lb. .14½- —
bgs., 2,000-lb. lots, frt. equald lb. .14¾- —
bgs., 200-lb. lots, frt equald lb. .15¼- —
Edible lactose in fib dms., ½c. higher.
Lactose, ferment. grade, bgs., c.l., works lb. .08½- —
Lactose, USP, reg., fib. dms., 30,000-lb. lots, frt. equald lb. .21½- —
fib. dms., 2,000-lb. lots, frt. equald lb. .22¼- —
200-1,880-lb. lots, frt. equald lb. .22¾- —
USP lactose in bags 1½c to 1c lower
Lactose, USP, spray dried, bgs., t.l., frt. equald lb. .18½- —
bgs., l.t.l., frt equald lb. .19 - .19¾
Lady's slipper root, bls lb. 3.00 - 3.50
Lamp black, bgs., c.l., works lb. .16 - .45
Lanolin, USP, anhyd., 400-lb. dms., works lb. .24 - .26
USP, annyd., cosmetic, 400-lb. dms., works lb. .26 - .30
USP, hydrous, 400-lb dms., works lb. .20 - —
Lard, cash, dms., Chicago lb. .09¼- —
Lard oil (see Grease oil).
Larkspur seed, bgs. lb. .55 - —
Laurel leaf oil, dms., cns. lb 9.75 - 12.50
Laurent's acid, bbls lb. .70 - —
Lauric acid, pure, dms lb. .33¾- .36¼
tanks lb. .31¼- —
Lauryl alcohol, bots lb. 2.00 - 2.50
n-Lauryl methacrylate, dms., c.l., t.l., works lb. .65¼- —
dms., l.t.l., works lb. .65 - —
Lavandin oil, 22-24%, dms. lb. 1.10 - 1.50
Abrial, dms. lb. 1.00 - 1.50
Lavender flowers, medium, bls lb. .55 - .60
Ord., bls. lb. .20 - .25
Select., bls. lb. .90 - 1.00
Lavender flower oil, USP, French, 35-37% ester, cns lb. 1.85 - 4.00
40-42% ester, cns. lb. 5.00 - 7.75
Spike, Spanish, cns. lb. 2.20 - 3.00
Lead acetate, NF, cryst., gran., powd., bbls lb. .34½- —
White, cryst., bbls. lb. .25½- —
gran., bbls. lb. .26½- —
powd., bbls. lb. .26½- —
Lead arsenate, acid powder, dealers, 3-50-lb. bgs. or any quantity, frt. alld. on $150 or more lb. .30½- —
1-lb. bgs., same basis lb. .47 - —
Lead, blue, basic sulfate, bbls., c.l., shipt. point, frt. alld lb. .17 - —
bbls., l.c.l., same basis lb. .18 - —
Lead carbonate (see Lead, white, basic carbonate).
Lead chloride, dms. lb. .52 - —
Lead iodide, NF, V jars lb. 3.82 - —
Lead linoleate fused, 26% Pb, dms. lb. .38 - —
Lead metal prime, pigs, New York. lb. .12 - —
St. Louis lb. .1180- —
Lead monosilicate, bgs., c.l., works, frt. equald lb. .1385- —
bgs., l.c.l., same basis lb. .1485- —
Lead naphthenate, liq., 16% Pb., dms., dlvd lb. .19½- —
24% Pb., dms., dlvd. lb. .24¼- —
Solid, 37% Pb., dms., dlvd. lb. .31¾- —
Lead nitrate, bbls. lb. .24¼- .26¼
Lead orthosilicate gel., 50-60% PbO, dms., works lb. .29¾- .34¼
Lead peroxide, tech powd., bbls lb. .45 - .50
Lead phthalate, dibasic, dms., works. lb. .41 - —
Lead, red, 95% Pb_3O_4 or less, bbls., c.l., works, frt. equald. lb. .1475- —
bbls., l.c.l., same basis lb. .1575- —
Lead, red, 97% Pb_3O_4, bbls., c.l., same basis lb. .1495- —
bbls., l.c.l., same basis lb. .1595- —
Lead, red, 98% Pb_3O_4, bbls., c.l., same basis lb. .1510- —
bbls., l.c.l., same basis lb. .1610- —
Lead, resinate, precip. 23% Pb, dms., ton lots, dlvd lb. .43¾- —
Lead salicylate, normal dms., works lb. .46 - —
Lead silicate (see Lead white basic silicate).
Lead silicochromate, bgs., c.l., f.o.b. mfrs. point, frt. alld lb. .20 - —
bgs., l.c.l., same basis lb. .21 - —
Lead sulfate (see Lead blue basic sulfate).
Lead tallate, liq., 16% Pb, dms lb. .17¼- —
24% Pb, dms lb. .21¼- —
Solid, 30% Pb, dms lb. .26¾- —
Lead, white, basic carbonate, bgs., c.l., shipt pt., frt. alld lb. .18 - —
bgs., l.c.l., same basis lb. .19 - —
basic silicate, bgs., c.l., shipt. pt., frt. alld lb. .16½- —
bgs., l.c.l., same basis lb. .17½- —
basic silicate, bgs., c.l., shipt. pt., frt. alld lb. .17 - —
bgs., l.c.l., same basis lb. .18 - —
Lecithin, edible, tech., bleached, non-ret. dms., c.l., works. lb. .14 - .15
non-ret. dms., l.c.l., same basis lb. .15 - .16
Lecithin, edible, tech., unbleached, non-ret. dms., c.l., same basis lb. .13 - .14
non-ret. dms., l.c.l., same basis lb. .14 - .15

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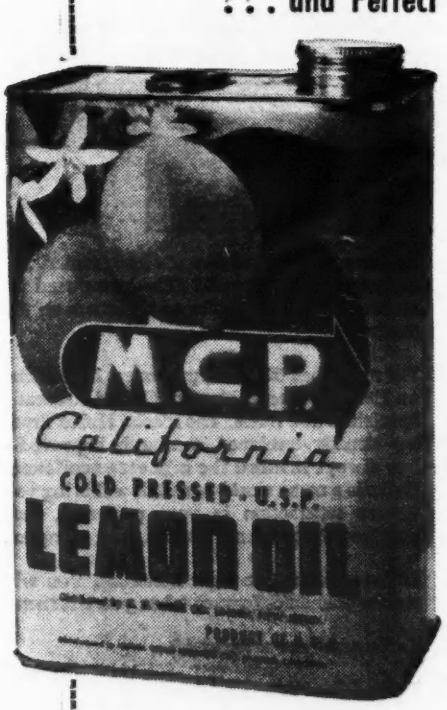

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For nearly 30 years, Mutual Citrus Products Co. has been cold-pressing California lemon oil for distribution by others. Now, M.C.P. LEMON OIL is being *prepared and packed* under the M.C.P. label. There is only *one label* and *one* quality — *the highest* — for M.C.P. LEMON OIL. Yet, M.C.P. LEMON OIL costs you *less* . . . while providing a product that is unsurpassed for flavor, purity, and dependability . . . for *every* purpose.

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424 South Atchison Street, Anaheim, Calif.

R. D. WEBB & CO., INC.
137 Boston Post Road, Cos Cob, Conn.

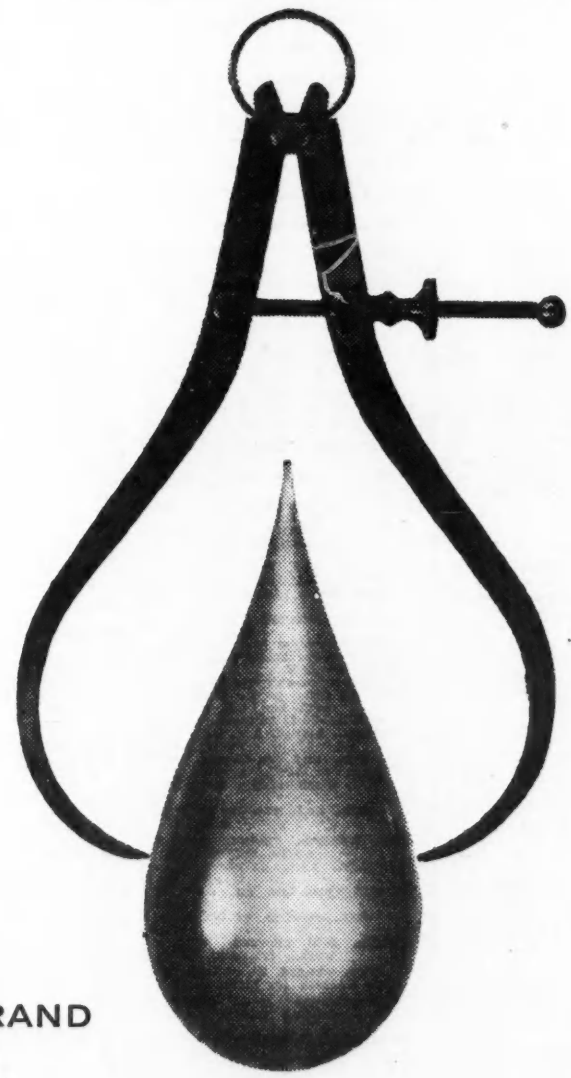
Lemon bioflavonoid complex, 100-lb. package, works	lb.	6.45	—
Lemon oil, USP, Calif., cns., dms.	lb.	1.25	1.50
Messina, cns.	lb.	3.25	4.00
Lemongrass oil, cns., dms.	lb.	1.95	2.20
dl-Leucine, dms., works	lb.	12.25	15.00
Licorice root, gran., bls.	lb.	.13	—
Powd., bls.	lb.	.15	.16
Whole, bls.	lb.	.09	.10
Lignaloe wood oil, Mexican, cns	lb.	2.75	3.50
Lignosulfonate (see under Ammonium or Sodium lignin sulfonate)			
Lilac oil	lb.	1,500.00	
Lime, chemical (quicklime), bulk, c.l., 50,000 lbs., works, E	ton.	14.25	—
Chemical, hydrated, bgs., c.l., same basis	ton.	17.25	—
spray, bgs., c.l., same basis	ton.	18.25	—
For New York delivery, add $6.29 freight charge			
Lime oil, dist., Mexican, cns	lb.	5.50	—
West Indian, cns	lb.	5.50	—
Expressed, West Indian, cns	lb.	7.75	8.75
Lime salts (see Calcium).			
Lime-ammonium nitrogen, 20.5% N (see Ammonium nitrate with dolomite).			
Linalool, ex bois de rose oil, dms.	lb.	2.45	4.25
Syn., 98-100%, dms., works	lb.	2.40	2.75
Linalyl acetate ex bois de rose, 90-92%, dms	lb.	2.65	4.50
96-98% dms	lb.	3.25	—
Syn., 98-100%, dms., works	lb.	2.75	—
Lindane, 25% formulation, to distributors, dms. frt. alld.	lb.	1.35	1.50
Lindane, tech., to formulators, 250-lb dms., 5,000 lbs., dlvd.	lb.	2.13	—
100-lb. dms., 5,000-lbs., dlvd.	lb.	2.15	—
250-lb. dms., less than 5,000-lbs., dlvd	lb.	2.18	—
100-lb. dms., less than 5,000-lbs., dlvd	lb.	2.20	—
Linden flowers, with leaves, bls	lb.	35	.40
Without leaves, bls.	lb.	42	.45
Linseed meal, expeller, 32% bulk, Minneapolis, mills	ton.	37.00	—
Extracted, 34% bulk, same basis	ton.	50.00	—
Linseed oil, raw, dms., c.l., New York	lb.	.1610-	—
dms., l.c.l., New York	lb.	.1700-	.1750
tanks, f.o.b. Minneapolis	lb.	.1250-	—
tanks, New York	lb.	.1311-	—
tankwagon, New York	lb.	.1421-	—
Boiled linseed oil, .006c. per lb. higher.			
Linseed oil, acid, dist., dms	lb.	.1980-	—
Water-white, dms.	lb.	.2280-	—
Litharge, coml., powd., bbls., c.l., works, frt. equald	lb.	.1425-	—
bbls., l.c.l., same basis	lb.	.1525-	—
Lithium aluminum hydride, lump, dms., works	lb.	33.00	39.00
Lithium benzoate, dms.	lb.	1.65	1.67
Lithium bromide, NF, gran., bgs., works, frt. equald	lb.	2.60	—
Lithium carbonate, NF, dms., c.l., t.l., dlvd	lb.	1.29½-	—
dms., ton lots to t.l., dlvd	lb.	1.30	1.30½
Tech., dms., c.l., frt. alld	lb.	.67	—
dms., t.l., same basis	lb.	.73	—
dms., ton lots, same basis	lb.	.76	—
dms., smaller lots, f.o.b., plant.	lb.	.81	—
Lithium chloride, CP, anhyd., dms., ton lots	lb.	1.23½-	—
Tech., anhyd., dms., c.l., t.l., dlvd. or works, frt. alld	lb.	.87	—
dms., l.c.l., same basis	lb.	.88	.92
Lithium citrate, NF, dms., ton lots.	lb.	1.50	—
Lithium fluoride, dms., 20,000-lb. lots, dlvd	lb.	2.15	—
bbls., ton lots and more, dlvd	lb.	2.18½-	—
bbls., less ton lots, dlvd.	lb.	2.23½-	—
Lithium hydride, powd., dms., 500-lbs. lots or more, works.	lb.	9.50	—
Lithium hydroxide, monohydrate, dms., c.l., t.l., frt. alld	lb.	.72	—
dms., l.c.l., frt. alld.	lb.	.73	—
Lithium manganite, dms., works	lb.	.95	1.05
Lithium nitrate, tech., dms., 100-lb lots	lb.	1.15	1.25
Lithium salicylate, dms.	lb.	1.60	1.70
Lithium silicate, dms., works	lb.	1.10	1.20
Lithium stearate, dms., c.l., works,	lb.	.47½-	—
dms., ton lots, works	lb.	.48½-	—
dms., less-ton lots, works	lb.	.53½-	—
Lithium sulfate, dms., 100-lb. lots.	lb.	1.15	1.25
Lithium titanate, dms., works	lb.	1.15	1.25
Lithol red toner, barium, bbls., works	lb.	.98	—
Lithol-rubine red toner, pure, bbls., works	lb.	1.50	—
Resinated, bbls., works	lb.	1.47	—
Lithopone, ord., bgs., c.l., dlvd. E.	lb.	.08¾-	—
bgs., l.c.l., dlvd. E	lb.	.09⅛-	—
Titanated (high-strength), bgs., c.l., dlvd	lb.	.11	—
bgs., l.c.l., dlvd.	lb.	.12	—
Lobelia herb, bls	lb.	.75	.80
Lobeline sulfate, bots., 50-oz. lots, works	oz.	30.00	—
Locust bean gum, powd., bgs.	lb.	.35	.40
Lycopodium, cs.	lb.	3.25	3.50
l-Lysine monohydrochloride, 25-lb. dms	lb.	4.95	—

M

Mace, Siauw, No. 1, bls.	lb.	1.70	—
No. 2, whole, bls.	lb.	1.40	—
siftings, bls.	lb.	1.35	—
Mace oil, dist., cns., dms	lb.	9.00	11.00
Magnesia, calcined, tech., bgs., ctns., frt equald	lb.	.25¾-	.26½
Tech., syn., rubber grade, light, bgs., c.l., frt. equald	lb	.28¾-	.30
rubber grade, extra light, bgs., c.l., frt. equald	lb.	.28	—
bgs., l.c.l., frt. equald	lb.	.28¾-	—
Above prices are quoted f.o.b. works, freight equald., with Metropolitan New York and competitive producing points			
Magnesia, calcined, tech., heavy, 85%, bgs., c.l., f.o.b. Lunning, Nev	ton.	39.50	—
91%, bgs., c.l., same basis.	ton.	49.50	—
95%, bgs., c.l. same basis.	ton	59.00	—
USP, light, bgs.	lb.	.36½-	.37½
USP, heavy, bgs.	lb.	.36½-	.37½
Magnesite, chemical grade, calcined, powd., bgs., c.l., works, frt. equald	ton.	86.25	—
Chemical grade, deadburnt, standard grain, bulk., c.l., Chawelah, Wash.	ton.	46.00	—
Magnesium bromide, cs., jars	lb.	.95	1.00
Magnesium carbonate, tech., bgs., c.l., frt. equald	lb.	.11	—
bgs., t.l., frt. equald	lb.	.11½-	—
bgs., l.c.l., frt. equald	lb.	.13½-	.14
Magnesium carbonate, USP, bgs., c.l., frt. equald	lb.	.13½-	—
bgs., t.l., frt. equald	lb.	.14	—
bgs., l.c.l., frt. equald	lb.	.15	.16
• Above prices are quoted f.o.b. works, freight equald., with Metropolitan New York and competitive producing points.			
Magnesium chloride, anhyd., 92%, flake or pebble, drums., c.l., works	lb.	.12¾-	—
dms., l.c.l., works	lb.	.14	.15
Magnesium chloride, hydrous, 99%, flake, bgs., c.l., works	ton.	55.00	—
bgs., l.c.l., works	ton.	65.00	80.00
Magnesium gluconate, 100-lb. dm., f.o.b. works, E	lb.	1.42	—
Magnesium hydroxide, NF, powd., dms., 500-lbs. or more, f.o.b. works	lb.	.24½-	.25½
Magnesium lauryl sulfate, dms., c.l., frt. alld	lb.	.22½-	—
dms., l.t.l., frt alld.	lb.	.23½-	—
tanks, frt. alld.	lb.	.21½-	—
Magnesium metal, 99.8%, ingots, 10,000-lb. lots or more, works	lb	.36	—
pigs, 10,000-lb. lots or more, works	lb.	.35¼-	—
sticks, cs., works, frt. alld on carlots	lb.	.59	—
Magnesium nitrate, cryst., dms., works	lb.	.29	—
Magnesium oxide (see Magnesia, calcined).			
Magnesium phosphate, tribasic, NF, bbls	lb.	.75	—
Magnesium silicate (see Talc).			
Magnesium silicofluoride, dms., works	lb	.10½-	.12
Magnesium sulfate, tech., bgs., c.l., works 100 lbs.		2.15	—
bgs, l.c.l., works 100 lbs.		2.90	3.15
USP, cryst., bgs., c.l., works, 100 lbs.		2.35	—
bgs., l.c.l., 5,000 lbs., 1 withdrawal 100 lbs.		3.10	—
bgs., smaller lots 100 lbs.		3.35	—
Magnesium trisilicate, USP, fib. dms., 5,000-lb. lots	lb.	.38	—
fib. dms., 1,000-lb. lots	lb.	.40	—
fib. dms., 100-lb. lots	lb.	.45	—
Bulky and super grades of magnesium trisilicate 7c. per lb. higher.			

Lemon Bioflavonoid Complex—MBT

Malachite green, straight, PTA, bbls., works	lb.	5.30	—
Malathion, dms., c.l., works	lb.	.89	—
dms., l.c.l., works	lb.	.92	1.01
Maleic acid, cryst., powd., dms	lb.	.37¼-	—
Maleic anhydride, dms., c.l., frt. equald	lb.	.24	—
dms., l.c.l., frt. equald	lb.	.25½-	—
tanks, frt. equald	lb.	.22½-	—
Maleic anhydride in bags ½c. per lb. less.			
Malic acid, tech., dms	lb.	.50	—
Mandelic acid, NF, dms., 1,000-lb. lots	lb.	2.35	—
dms., smaller lots	lb.	2.40	2.50
Mandrake root, bls	lb.	.45	—
Manganese acetate, dms., dlvd	lb.	.35	—
Manganese borate, tech., fib. dms.	lb.	.23½-	—
Manganese carbonate, chemical grade, 46% Mn, bgs., 20,000-lb. lots and more, works	lb.	.11	.16
Manganese chloride, CP, anhyd., dms., 20,000-lb. lots, works	lb.	.21¾-	—
smaller lots, works	lb.	.23½-	—
Manganese dioxide, African, 83-87%, 40,000 to 99,999-lb. lots, burlap paper lined bgs., grass for net works	ton.	148.00	—
40,000 to 99,999-lb. lots, paper bgs., same basis	ton.	144.50	—
40,000 to 99,999-lb. lots, dms. same basis	ton.	152.50	—
Prices for manganese dioxide in 10,000 to 40,000-lb. lots, $3 per ton higher.			
Manganese gluconate, dms	lb.	1.84	—
Manganese hydrate, dms., dlvd	lb.	.35	—
Manganese hypophosphite, NF, dms.	lb.	3.52	—
Manganese linoleate, liq., 4.35% Mn, dms	lb.	.35¾-	—
Solid, precip., 8.2% Mn, bbls	lb.	.41¼	—
Manganese metal, electrolytic, dms., c.l., dlvd. E	lb.	.34	—
dms., ton lots, dlvd. E	lb.	.36	—
dms., smaller lots, dlvd. E	lb.	.38	—
Manganese naphthenate, liq., 6% Mn, dms., frt. alld	lb.	.29¾-	—
Manganese resinate, fused, 3½% Mn, dms	lb.	.29¼-	—
Precip., 6½-7% Mn, dms	lb.	.37	—
Manganese sulfate, fertilizer grade, 65% $MnSO_4$, bgs., c.l., dlvd., S. E	ton.	86.50	—
bgs., t.c.l., dlvd. S. E	ton.	93.50	—
Manganese tallate, 6%, dms	lb.	.26½-	—
Manila copal gum, C, bgs.	lb.	.35	.39
DBB, bgs.	lb.	.25	.28
DK, bgs.	lb.	No stocks.	
DK, dust, bgs.	lb.	.14	Nom.
MA, soft, bgs.	lb.	.20	.24
WS, bgs.	lb.	No stocks.	
Mannitol, com'l, fib. dms., ton lots, works	lb.	.60	—
fib. dms., to ton lots, works	lb.	.62	—
fib. dms., single dm., works	lb.	.65	—
Marine pitch, dms.	lb.	.04¼-	.05
MBTS (see Mercaptobenzothiazyl disulfide).			
MBT (see 2-Mercaptobenzothiazole).			



IN

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Batch after batch...year after year...the same full, tangy taste and aroma of real California lemon!

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Exchange

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California Cold Pressed

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Fritzsche Brothers, Inc., 76 Ninth Ave., New York 11, N.Y.
Ungerer & Co., 161 Avenue of the Americas, New York 13, N.Y.

Melamine, bgs., c.l., works ..... lb. .26½ - —
bgs., l.c.l., works ..... lb. .28 - —
Menadione, USP, bots. ..... gram. .044 - .05
Menhaden oil, crude, tanks, works, Atl. & Gulf ..... lb. .06 - —
Menthol, nat., USP. Brazilian, large crystals, cs ..... lb. 9.00 - 9.50
Nat., USP. Brazilian, regular crystals, cs ..... lb. 8.75 - —
Japanese, cs. ..... lb. 12.00 - —
Syn., USP, racemic. 25-lb. lots ..... lb. 4.25 - —
2-Mercaptobenzothiazole, bgs., fib. dms., ton lots, works, frt. alld ..... lb. .44 - —
bgs., fib. dms. less ton lots, same basis ..... lb. .46 - —
Mercaptobenzothiazyl disulfide, bgs., fib. dms., ton lots, works, frt. alld ..... lb. .54 - —
bgs., fib. dms., less ton lots, same basis ..... lb. .56 - —
Mercuric chloride, NF, cryst., dms., 100 lbs., f.o.b. works ..... lb. 4.03 - —
USP, gran. or powd., 50-lb. dm., 100 lbs., f.o.b. works ..... lb. 3.78 - —
Mercuric cyanide, NF VIII, powd., fib. dms ..... lb. 5.84 - —
Mercuric iodide, red, NF, 100-lb. dm., f.o.b. works ..... lb. 6.97 - —
Mercuric oxide, red, NF IX, 50-lb. dm., 100 lbs., f.o.b. works. ..... lb. 4.72 - —
tech., 50-lb. dm., 100 lbs., same basis ..... lb. 4.52 - —
Mercuric oxide, yellow, NF, 50-lb. dm., 100 lbs., same basis. ..... lb. 4.89 - —
tech., dms., 100 lbs ..... lb. 4.35 - —
25-lb. fib. dm. ..... lb. 4.38 - —
Mercurous chloride (see Calomel).
Mercurous iodide, yellow, NF, 100-lb. dm. f.o.b. works ..... lb. 8.22 - —
Mercury, ammoniated (see White precipitate, USP XV).
Mercury metal, 76 lbs. per flask, net-flask ..... 209.00 - 212.00
Mesityl oxide, dms., c.l., dlvd ..... lb. .15 - —
dms., l.c.l., dlvd. ..... lb. .16½ - —
tanks, dlvd. ..... lb. .12½ - —
Meta-aminophenol (see m-Aminophenol).
Metachloroaniline (see m-Chloroaniline).
Metanilic acid, dms., works ..... lb. .57 - .75
Metanitroparatoluidine (see m-Nitro-toluidine).
Metanitroaniline (see m-Nitroaniline).
Metaphenylenediamine (see m-Phenylenediamine).
Metatoluidine (see m-Toluidine).
Metatolylenediamine (see 2,4-Tolylenediamine).
Methacrylic acid, glacial, 98%, dms., truckloads frt. equald ..... lb. .42½ - —
dms., smaller lots, frt. equald. ..... lb. .43 - .75
tanks, works, frt. equald ..... lb. .40 - —
Methanol, nat, denaturing grade, tanks, frt. alld ..... gal. .85 - —
Syn., zone 1, dms., c.l., or t.l. min., dlvd ..... gal. .51½ - —
dms., l.c.l., dlvd. ..... gal. .61½ - —
tankwagon, 2,000-4,000 gal. lots, dlvd. Metropolitan area ..... gal. .35 - —
tankwagon, 4,000 gal. min., dlvd ..... gal. .30 - —
tankwagon, 4,000 gal. min., f.o.b. terminal ..... gal. .29 - —
Methanol, syn., zone 2, dms., c.l., or t.l., min. frt. alld. or dlvd. ..... gal. .55½ - —
dms., l.c.l., works ..... gal. .65½ - —
tankwagon, 2,000-4,000 gal. lots, min., dlvd., Metropolitan area ..... gal. .39 - —
tanks, 4,000 gal. min., dlvd. ..... gal. .34 - —

Synthetic methanol zones are: Zone 1 is all continental US E. of eastern boundaries of Ariz., Idaho and Utah. Zone 2 is remainder of US west of above state boundaries comprising Ariz., Calif., Idaho, Nev., Ore., Utah and Wash.

Methapyrilene fumarate, 100-999 lbs., dms., f.o.b. works, frt. equald ..... lb. 21.75 - —
Methapyrilene hydrochloride, 100-999 lbs., dms., f.o.b. works, frt. equald ..... lb. 27.25 - —
Methenamine (see Hexamethylene-tetramine).
Methionine hydroxyanalogue, (calcium salt) 90% min., dms., t.l., frt. alld. ..... lb. 1.10 - —
dms., l.t.l., same basis ..... lb. 1.16 - —
dl-Methionine, fib. dms., frt. alld., 50-lb. or more ..... lb. 3.50 - —
Feed grade, 98% fib dms., same basis ..... lb. 1.43 - —
Methoxychlor, 50% wettable powder, dealers, dms., cs ..... lb. .66 - —
Methyl abietate, non-ret. dms., c.l., dlvd. zone 1 ..... lb. .21½ - —
non-ret. dms., l.c.l., same basis ..... lb. .22 - .22½
Methyl abietate, hydrogenated, non-ret. dms., c.l., dlvd. zone 1 ..... lb. .23½ - —
non-ret. dms., l.c.l., same basis. ..... lb. .24 - .24½

Zone 1 includes New England and Middle Atlantic states, Va., W. Va., N. C., Ohio, Ky., Mich., Ind., Ill., Wis., St. Paul and Minneapolis, Minn.; St. Louis, Mo.; Miss., Ala., Ga., Fla., S. C. and Tenn.

Methyl acetone, nat., dms., l.c.l., E. of Miss., frt. alld ..... gal. .62½ - —
Methyl acetone, syn., dms., c.l., frt. alld. E ..... gal. .66 - —
dms., l.c.l., frt. alld. E. ..... gal. .76 - —
tanks, frt. alld. E. ..... gal. .51 - —

Synthetic methyl acetone E. territory comprises all states East of and including Colo., Mont., N. Mex. and Wyo. West territory is made up of all states west of those four.

Methyl acrylate, dms., c.l., t.l., dlvd. ..... lb. .39 - —
dms., l.t.l., dlvd. ..... lb. .40 - —
tanks, dlvd. ..... lb. .37 - —
Methyl alcohol (see Methanol).
Methyl amyl acetate, dms., c.l., dlvd. E ..... lb. .17 - —
dms., l.c.l., dlvd. E. ..... lb. .18½ - —
tanks, dlvd. E. ..... lb. .14½ - —
Methyl amyl alcohol, dms., c.l., dlvd. ..... lb. .17 - —
dms., l.c.l., dlvd. ..... lb. .18½ - —
tanks, dlvd. ..... lb. .14½ - —
Methyl amyl ketone, dms., works. ..... lb. 1.05 - —
N-Methylaniline, tech., tanks, frt. alld ..... lb. .60 - —
Methylanthranilate, cns. ..... lb. 2.25 - 2.45
Methyl benzoate, cns., dms. ..... lb. .60 - .75
Methyl bromide, service organization prices, 40 to 375-lb. cyls., large lots, frt alld ..... lb. .62 - .65
on 100 lbs ..... lb. .79 - .82
Methyl cellulose, special vis., (1,500-4,000 cps.) 50-lb. bgs., c.l., works ..... lb. .82 - —
50-lb. bgs., 2,000-lb. lots and more, same basis ..... lb. .89 - —
50-lb. bgs., smaller lots, frt. alld. on 100 lbs ..... lb. 1.05 - —
Standard vis. (15,400 cps.) 50-lb. bgs., c.l., frt. alld ..... lb. .69 - —
50-lb. bgs., 2,000-lb. lots and more, same basis ..... lb. .76 - —
50-lb. bgs., smaller lots, frt. alld. ..... lb. .82 - —
Methyl chloride, indust., cyls., frt. equald ..... lb. .22¼ - —
tanks, multi-unit, same basis. ..... lb. .16¼ - —
tanks, single unit, same basis. ..... lb. .12¾ - —
Refrigerator mfrs., cyls., dlvd ..... lb. .48¾ - —
Other consumers or service men, cyls., dlvd ..... lb. .67¾ - —
Methyl chloroform (see 1,1,1-Trichloroethane).
Methyl cinnamate, cns. ..... lb. 1.55 - 1.80
Methyl ethyl ketone, dms., c.l., dlvd ..... lb. .15 - —
dms., l.c.l., dlvd ..... lb. .16½ - —
tanks, dlvd. ..... lb. .12½ - —
2-Methyl-5-ethyl pyridine, dms., c.l., works ..... lb. .45 - —
dms., l.c.l., works ..... lb. .45¾ - —
tanks, works ..... lb. .43 - —
Methyl formate, refd., dms ..... lb. .35 - .40
Tech., non-ret. dms., any quantity, works ..... lb. .10 - —
tanks, works ..... lb. .07 - —
a-D Methyl glucoside, tech., 100-lb. multiwall paper bgs., c.l., works ..... lb. .21 - —
100-lb. multiwall paper bgs., t.l., min. 23,000 lbs., works. ..... lb. .21½ - —
100-lb. multiwall paper bgs., l.t.l., works ..... lb. .23 - —
Methyl heptin carbonate, bots ..... lb. 27.75 - 31.00
Methyl p-hydroxybenzoate, fib. dms. ..... lb. 1.90 - 2.00
Methyl ionone, standard, cns., dms. ..... lb. 3.40 - 3.85
Methyl isoamyl ketone, dms., c.l., dlvd ..... lb. .20 - —
dms., l.c.l., dlvd. ..... lb. .20½ - —
tanks, dlvd. ..... lb. .17½ - —
Methyl isobutyl carbinol (see Methyl amyl alcohol).
Methyl isobutyl Ketone, dms., c.l., dlvd ..... lb. .17 - —
dms., l.c.l., dlvd ..... lb. .18½ - —
tanks, dlvd ..... lb. .14½ - —
Methyl methacrylate, dms., c.l., t.l., frt. equald, with Belle, W. Va ..... lb. .31 - —
dms., smaller lots, same basis ..... lb. .31½ - —
tanks, same basis ..... lb. .29 - —
Methyl naphthyl ketone, cryst., cns ..... lb. 2.45 - 4.30
Methyl parahydroxybenzoate (see p-Hydroxybenzoate).
Methyl parathion, tech., 80%, dms., frt. alld. E ..... lb. .84 - —

Methyl parathion prices 2c. per lb. higher in West.

Methyl roseaniline chloride, NF., 5-lb. fib. dms ..... lb. 6.90 - —
Methyl salicylate, dms., t.l., frt. alld ..... lb. .60¼ - —
dms., l.c.l., same basis ..... lb. .62½ - .67½
Methyl testosterone, USP, 100-gram. bots ..... gram. No Prices.
2-Methyl-5-vinyl pyridine, 40-dm. lots or more, f.o.b. works ..... lb. 1.30 - —
5-39 dm. lots, same basis ..... lb. 1.35 - —
tanks, same basis ..... lb. 1.25 - —
Methyl violet toner, molybdated, PMA, bbls., dlvd. E. of Rockies ..... lb. 2.80 - —
Tungstated, PTMA, bbls., same basis ..... lb. 4.35 - —

Methyl violet prices 1c. higher W. of Rockies.

Methylene blue, fib. dms., 100-lb. lots, frt adjusted ..... lb. 3.25 - —
Methylene chloride, tech., straight or assorted, dms., c.l., or t.l., dlvd ..... lb. .13½ - —
dms., l.c.l., l.t.l., dlvd ..... lb. .15¾ - —
tanks, 4,000-gal. min., dlvd ..... lb. .12¼ - —
tanktrucks, 1,000-gal. min., dlvd. ..... lb. .13¼ - —
b-Methylnaphthalene, 32°C., m.p., dms., works ..... lb .90 - —
Methylpentanediol (see Hexylene glycol)
Methylphenylpyrazolone (see 1-phenyl-3-methyl-pyrazolone-5).
Methylthionine chloride (see Methylene blue).
Mica, dry-grd., paint, plastic, 100 mesh, bgs., c.l., works ..... lb. .04 - —
roofing, 20 to 80 mesh, works ..... lb. .03 - —
wet-grd., biotite, bgs., c.l., works, frt. alld.E ..... lb. .06½ - —
bgs., l.c.l., ex-whse. ..... lb. .07¼ - —
paint or lacq., bgs., c.l., 325 mesh, works, frt. alld. E. ..... lb. .08¼ - —
bgs., l.c.l., ex-whse or freight alld. E ..... lb. .09 - —
Mica, wet-grd., rubber, bgs., c.l., works, frt. alld. E ..... lb. .08 - —
bgs., l.c.l., ex-whse, or frt. alld. E ..... lb. .08¾ - —
wallpaper, bgs., c.l., works, frt. alld.E ..... lb. .08¾ - —
bgs., ex-whse. or frt. alld. E. ..... lb. .09 - —
white, 5-10 microns, bgs., c.l., works, frt. alld. E ..... lb. .08¼ - —

Mica, wet-grd. W. of Miss. ½c. higher; W. of Rockies 1c. higher.

Microcrystalline wax, petroleum, coating grades, tankcars, works ..... lb. .10 - .11
laminating grades, tankcars, works ..... lb. .11 - .12
Mineral black, bgs., works ..... lb. .0160 - .0673
Mineral oil, white, tech., 50-65 vis., non-ret. dms., c.l., f.o.b. refy ..... gal. .65 - —
50-65 vis., non-ret. dms., l.c.l., basis ..... gal. .70 - —
tankscars, refy. ..... gal. .49 - —
Mineral oil, white, tech., 65-75 vis., non-ret. dms., c.l., same basis ..... gal. .65 - —
non-ret. dms., l.c.l., same basis ..... gal. .70 - —
tankcars, refy. ..... gal. .49 - —
NF, 80-90% vis., non-ret. dms., c.l., same basis ..... gal. .66 - —
non-ret. dms., l.c.l., same basis ..... gal. .71 - —
tankcars, refy. ..... gal. .50 - —
NF, 135-138 vis., non-ret. dms., c.l., same basis ..... gal. .72 - —
Mineral oil, white, NF, 135-138 vis., non-ret. dms., l.c.l., same basis ..... gal. .77 - —
tankcars, rfy. ..... gal. .56 - —
NF, 145-155 vis., non-ret. dms., c.l., same basis ..... gal. .78 - —
non-ret. dms., l.c.l., same basis ..... gal. .83 - —
tankcars, refy. ..... gal. .62 - —
Mineral oil, white, USP, 180-190 vis., non-ret. dms., c.l., same basis ..... gal. .80½ - —
non-ret. dms., l.c.l., same basis ..... gal. .85½ - —
tankcars, refy. ..... gal. .64½ - —
USP, 200-210 vis., non-ret. dms., c.l., f.o.b. refy ..... gal. .82½ - —
non-ret. dms., l.c.l. ..... gal. .87½ - —
tankcars, refy ..... gal. .66½ - —
USP, 340-350 vis., non-ret. dms., c.l., f.o.b. refy ..... gal. .87½ - —
non-ret. dms., l.c.l. ..... gal. .92½ - —
tankcars, refy. ..... gal. .71½ - —

(For f.o.b N. Y. add 2c. for tankcars; 2c. for c.l., and 3c. for l.c.l. non-ret. dms.).

Mineral orange, American, bbls., c.l., works ..... lb. .17 - —
bbls., c.l., same basis ..... lb. .18 - —
Mineral spirits, petroleum, odorless, tankcars, New Jersey ..... gal. .29 - —
New York ..... gal. .305 - —
Houston, Texas ..... gal. .25 - —
regular, tankcars, New Jersey and New York ..... gal. .18 - —
Group 3 ..... gal. .12875 - —
Houston, Texas ..... gal. .145 - —
140 F. flash, New York, New Jersey at terminal ..... gal. .205 - —
Houston, Texas ..... gal. .17 - —
Mink oil, dms. ..... lb. 2.75 - —
Mirbane oil (see Nitrobenzene).
MNPT maroon toner, kgs., c.l., works ..... lb. 8.30 - —
Molasses, blackstrap, feed grade, tanks, New Orleans ..... gal. .11¼ - .12
tanks, New York ..... gal. .13½ - —
Molybdated orange, bbls. ..... lb. .49 - —
Molybdenum metal, powd., 80 or 200 mesh, ctns., works ..... kilo. 7.84 - —
325 mesh, ctns., works ..... kilo. 9.13 - —
Molybdenum trioxide, purif., dms., works ..... lb. 1.15 - —
Tech., chemical, dms., works, basis Mo content ..... lb. 1.48 - —
Tech., metallurgical, dms., works, basis Mo. content ..... lb. 1.47 - —
Molybdic acid, 85%, dms., works. ..... lb. 1.05 - 1.15
Monoallylamine, dms., c.l., dlvd ..... lb. .965 - —
dms., c.l., dlvd. ..... lb. .995 - —
tanks, dlvd. ..... lb. .96 - —
Monobutylamine, dms., c.l., dlvd. E. of Rockies ..... lb. .57½ - —
dms., l.c.l., same basis ..... lb. .59 - —
tanks, same basis ..... lb. .55 - —
Mono-tert-butyl-m-cresol, dms., c.l., works ..... lb. .55 - —
dms., l.c.l., works ..... lb. .56 - —
tanks, works ..... lb. .54 - —
Mono-tert-butyl-m-cresol, dms., c.l., works ..... lb. .55 - —
dms., l.c.l., works ..... lb. .56 - —
tanks, works ..... lb. .54 - —
Monochloracetic acid, purif. (see Chloroacetic acid, mono).
Monochlorobenzene, dms., c.l., frt. alld. or dlvd. E ..... lb. .10½ - —
dms., l.c.l., same basis ..... lb. .11½ - —
tanks, same basis ..... lb. .08¾ - —
Monoethanolamine, dms., c.l., dlvd. E ..... lb. .27½ - —
dms., l.c.l., same basis ..... lb. .29 - —
tanks, same basis ..... lb. .25 - —
Monoetnylaphanaphthylamine (see
Monoethylamine, 70% aqueous, solution, dms., c.l., dlvd. E. 100% basis ..... lb. .38¼ - —
dms., l.c.l., dlvd. E., 100% basis. ..... lb. .40 - —
tanks, dlvd. E., 100% basis ..... lb. .35 - —
Monoethylaniline (see N-Ethylaniline).
Monoethylorthotoluidine (see N-Ethyl-o-toluidine).
Monoisopropanolamine, dms., c.l., dlvd. E ..... lb. .27½ - —
dms., l.c.l., same basis ..... lb. .29 - —
tanks, same basis ..... lb. .25 - —
Monoisopropylamine, anhyd., dms., c.l., dlvd ..... lb. .33¼ - —
dms., l.c.l., same basis ..... lb. .35 - —
tanks, same basis ..... lb. .31 - —
Monomethylamine, anhyd., cyls., l.c.l., frt. equald., 100% basis ..... lb. .30 - —
tanks, 100% basis ..... lb. .26 - —
30-35% soln., dms., c.l., frt. equald., 100% basis ..... lb. .36 - —
Monomethylamine, 30-35% soln., dms., l.c.l., frt. equald, 100% basis ..... lb. .36½ - —
tanks, frt. equald., 100% basis. ..... lb. .26 - —
40% soln., dms., frt. equald., 100% basis ..... lb. .33 - —
dms., l.c.l., frt. equald., 100% basis ..... lb. .33½ - —
tanks, frt. equald, 100% basis. ..... lb. .26 - —
Monopentaerythritol, tech., bgs., c.l., dlvd. E ..... lb. .31 - —
bgs., l.c.l., dlvd. E ..... lb. .32 - —
Monopotassium glutamate, dms., 1,000-lb. lots, frt. alld ..... lb. 3.05 - —
dms., 100-lb. lots, same basis ..... lb. 3.25 - —
Monosodium glutamate, dms., dlvd. ..... lb. 1.07 - 1.15
Monosodium phosphate (see sodium phosphate, monobasic).
Montan wax, Calif., refd., bgs ..... lb. .27 - .28
Imp., crude, Bohemian, bgs ..... lb. .21 - .22
German, bgs. ..... lb. .25 - .26
Morphine, cns., 100-oz., f.o.b. works. ..... oz. 12.35 - —
Morphine hydrobromide, cns., 100-oz., f.o.b. works ..... oz. 9.90 - —
Morphine hydrochloride, NF, cns., 100-oz., f.o.b. works ..... oz. 9.90 - —
Morphine sulfate, USP, cns., 100-oz., f.o.b. works ..... oz. 9.90 - —
Morpholine, dms., c.l., dlvd. E ..... lb. .55¼ - —
dms., l.c.l., dlvd. E ..... lb. .56¼ - —
tanks, dlvd. E. ..... lb. .52¾ - —
Muriatic acid (see Hydrochloric acid).
Musk, syn., ambrette, fib. dms., 100-lb. lots ..... lb. 4.40 - 4.90
cns., 25-lb. lots ..... lb. 4.50 - 5.00
Ketone, fib. dms., 100-lb. lots ..... lb. 4.60 - 5.10
cns., 25-lb. lots ..... lb. 4.70 - 5.20
Xylol, fib. dms., 100-lb. lots ..... lb. 1.26 - —
cns., 25-lb. lots ..... lb. 1.40 - —
Mustard seed, Danish, yellow, bgs. ..... lb. .14 - —
Montana, yellow, bgs ..... lb. .10½ - —
Oriental, bgs ..... lb. .08 - —
Mustard, oil, syn., bots ..... lb. 1.60 - 1.85
Myristic acid, bgs ..... lb. .26¾ - .29¼
tanks ..... lb. .25¾ - —
Myrrh gum, cs ..... lb. .65 - .75

N

Naphtha, high solvency (see Solvent naphtha, petroleum).
Naphtha, petroleum, cleaner's (see Cleaner's naphtha).
Naphtha, VM&P, petroleum, tankcars, New Jersey and New York ..... gal. .19 - —
Group 3 ..... gal. .13875 - —
Houston, Texas ..... gal. .155 - —
Naphthalene, crude, dom., 78°, tanks, frt. equald ..... lb. .06 - —
imp., 78°, bgs., large lots lb. .09½ Nom.
Refd., indust., chipped, crushed, bgs., frt. equald ..... lb. .13½ - —
tanks, same basis ..... lb. .10¾ - —
Naphthalene, refd., indust., balls, flakes, wholesalers, jobbers, bbls., c.l., same basis. ..... lb. .15½ - —
cs., 50 lbs., c.l., same basis. ..... lb. .15¾ - —
1-lb. pkgs., c.l., same basis. ..... lb. .18½ - —
a-Naphthol, dms., frt. alld ..... lb. 1.02 - —
b-Naphthol, tech., flake, bbls., c.l., works ..... lb. .34 - —
bbls., l.c.l., works ..... lb. .36 - —
Naphthol, ITR, red toner, bbls., works ..... lb. 5.00 - —
1-Naphthol-3,6-disulfonic 8-amino acid (see H acid).
1-Naphthol-4 sulfonic acid (see Neville and Winther's acid).
1-Naphthol-5-sulfonic acid (see L acid).
1-Naphthol-5-sulfonic 8-amino acid (see S acid).
2-Naphthol-6,8-disulfonic acid (see Gamma acid).
Naphthol sulfonic mixed acid (see Cleve's acid).
a-Naphthylamine, dms., frt. alld ..... lb. .52 - —
b-Naphthylamine, tech., flake, bbls., works ..... lb. 1.60 - —
1-Naphthylamine-5-sulfonic acid (see Laurent's acid).
2-Naphthylamine-4,8-disulfonic acid (see Cassella acid).
2-Naphthylamine-1-sulfonic acid (see Tobias acid).
2-Naphthylamine-6-sulfonic acid (see Broenner's acid).
2-Naphthylamine-7-sulfonic acid (see F acid).
Naringin, fib. dms. ..... lb. 8.50 - —
Neatsfoot oil, 15° cold test, dms ..... lb. .29 Nom.
20° cold test, dms. ..... lb. .28 Nom.
30° cold test, dms. ..... lb. .27 Nom.
Neocinchophen, USP, dms., frt. adjusted ..... lb. 7.00 - 8.00
Neomycin sulfate, fib. dms., 1-kilo basis activity ..... gram. .25 - —
fib. dms., 100-999-gram lots, basis activity ..... gram. .30 - —
Tech., fib. dms. ..... gram. .13½ - —
Neopentylglycol, dms., c.l., dlvd ..... lb. .32 - —
dms., l.c.l., same basis ..... lb. .33 - —
Nerol, dms. ..... lb. 4.75 - —
Neroli oil, NF, French, bots ..... lb. 425.00 - 575.00
Tunisian, bots. ..... lb. 400.00 - —
Nerolin, cns. ..... lb. 2.45 - 2.85
Neville and Winther's acid, dms., frt. alld ..... lb. 1.40 - —
Niacinamide (see Nicotinamide).
Nickel acetate, bbls., dlvd. ..... lb. .68½ - .75½
Nickel carbonate, bbls., dlvd ..... lb. 78¼ - .85¼
Nickel chloride, bbls., dlvd. ..... lb. .37 - .45
Nickel formate, bbls., ton lots, frt. alld ..... lb. .72 - .73
Nickel metal, electro cathodes, cs., works ..... lb .74 - —
Nickel nitrate, dms., frt. alld ..... lb. .31½ - .33½
Nickel oxide, black, bbls. ..... lb. .85 - —
Green, bbls. ..... lb. .84 - —
Nickel sulfate, bgs., c.l., dlvd ..... lb. .28 - —
bgs., l.c.l., dlvd. ..... lb. .28½ - .36
Nicotinamide, USP, 50-kilo., dms., 100 kilos., dlvd kilo. 6.50 - —
dms., less than 100 kilos, dlvd. ..... kilo. 6.60 - 7.00
Nicotine sulfate, 40%, dealers, 50-lb. dms. frt. alld ..... lb. 1.20 - —
40%, manufacturers, 500-lb. dms., frt. alld ..... lb. 1.05 - —
Nicotinic amide, USP (see Nicotinamide).
Niger seed, bgs. ..... lb. .10¼ - —
Nikethamide, cbys. ..... lb. 5.00 - —
Nitric acid, 36° Be., cbys., c.l., works E 100 lbs. 5.75 - —
cbys., l.c.l., works E 100 lbs. 6.05 - 6.85
38° Be., cbys., c.l., works E. 100 lbs. 6.25 - —
cbys., l.c.l., works E 100 lbs. 6.55 - 7.35
40° Be., cbys., c.l., works E. 100 lbs. 6.75 - —
cbys., l.c.l., works E 100 lbs. 7.05 - 7.85
42° Be., cbys., c.l., works E. 100 lbs. 7.25 - —
cbys., l.c.l., works E 100 lbs. 7.55 - 8.35
58.5 to 68% HNO3, tanks, works, 100% basis 100 lbs. 3.90 - —
94½ to 95½% HNO3, tanks, works, 100% basis 100 lbs. 4.90 - —
CP, NF, consumer, cbys., extra, c.l., works lb. .18½ - —
cbys., extra, l.c.l., works. ..... lb. .20 - —
5-pint bots., extra, cs., c.l., same basis ..... lb. .22½ - —
5-pint bots., extra, cs., l.c.l., same basis ..... lb. .24 - .25
dms., frt. alld ..... lb. .99 - —
m-Nitroaniline, cryst., dms., frt. alld ..... lb. 1.15 - —
Paste, dms., frt. alld., 100% basis. ..... lb. 1.10 - —
o-Nitroaniline, flaked, dms., t.l., frt. alld ..... lb. .49 - —
dms., l.t.l., frt. alld. ..... lb. .51 - —
o-Nitroaniline orange toner, kgs. ..... lb. 1.35 - —
p-Nitroaniline, c.l., t.l., dms., frt. alld ..... lb. .445 - —
dms., l.c.l., same basis ..... lb. .46½ - —
o-Nitroanisole, tech., tanks, frt. alld. ..... lb. .36 - —
p-Nitroanisole, tech., solid, dms., frt. alld ..... lb. .72 - —
Nitrobenzene, dbl. dist., dms., c.l., frt. alld ..... lb. .13 - —
dms., l.c.l., frt. alld. ..... lb. .14 - —
tanks, frt. alld. ..... lb. .11 - —
p-Nitrobenzoic acid, dms., c.l., works ..... lb. .63 - —
4-Nitro-2-aminophenol, tech., paste, dms., l.c.l., works ..... lb. .64 - —
Nitrocellulose, ester-soluble, 30-35 cps., ¼, ½, ¾, 5-6, 15-20, 30-40, 60-80, 125-175 seconds, bbls., c.l., works ..... lb. .37½ - —
bbls., l.c.l., same basis ..... lb. .33½ - .40⅛
18-20, cps., bbls., c.l., same basis ..... lb. .39½ - —
bbls., l.c.l., same basis ..... lb. .40½ - .42⅛
250-400, 600-1,000 seconds, bbls., l.c.l., same basis ..... lb. .43 - .46
Nitrocellulose, spirit soluble, 30-35 cps., ¼, ½ seconds, bbls., c.l., same basis ..... lb. .43 - —
bbls., l.c.l., same basis ..... lb. .44 - .46
5-6 cps., 40-60 seconds, bbls., c.l., same basis ..... lb. .42 - —
bbls., l.c.l., same basis ..... lb. .43 - .45

Denatured alcohol used in the manufacture of nitrocellulose is charged extra. Drums extra but returnable.

o-Nitrochlorobenzene, dms., c.l., frt. alld ..... lb. .15 - —
dms., l.c.l., same basis ..... lb. .16 - —
tanks, same basis ..... lb. .13 - —
p-Nitrochlorobenzene, dms. ..... lb. .26 - .27
2-Nitro-p-cresol, tech., dms., dlvd ..... lb. .88 - —
Nitroethane, dms., c.l., dlvd. E ..... lb. .25 - —
dms., l.c.l., dlvd. E. ..... lb. .26½ - —
tanks, dlvd. E. ..... lb. .22½ - —

Nitroethane prices West of Rockies are 1c. higher.

Nitrogen solutions, tanks, frt. equald, N. unit. 1.26 - —
Nitrogen tetroxide, indust., tankcars, f.o.b. Hopewell, Va. ..... lb. .065 - —
Cyls., t.l., min. 5 tons, same basis ..... lb. .07¼ - —
Cyls., l.c.l., l.t.l., same basis ..... lb. .15 - —
Nitrogenous process tankage, bulk, works unit-ton. 4.50 - 5.00
Nitrogenous sewage sludge, bulk, f.o.b. Chicago, works. unit-ton. 2.95 - —
Nitromethane, dms., t.l., dlvd. E ..... lb. .25 - —
dms., l.t.l., dlvd. E ..... lb. .26½ - —

Nitromethane prices West of Rockies are 1c higher.

a-Nitronaphthalene, bbls., frt. alld. ..... lb. .31 - —
o-Nitrophenol, dms., works, frt. equald ..... lb. .94 - —

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MERCK CHEMICAL DIVISION

MERCK & CO., INC. • RAHWAY, NEW JERSEY

p-Nitrophenol, dms., c.l., frt. alld. lb. .45 • —
dms., l.c.l., frt. alld lb. .47 • —
2-Nitropropane, dms., c.l., frt. alld. E of Rockies lb. .23½- —
dms., l.c.l., same basis lb. .25 • —
tanks, same basis lb. .21 • —
2-Nitropropane, dms., c.l., frt. alld. E of Rockies lb. .18½- —
dms., l.c.l., same basis lb. .20 • —
tanks, same basis lb. .16 • —
Nitropropane prices West of Rockies are 1c. per lb higher.
m-Nitrotoluene, tech., dms., frt. alld. lb. .50 • —
o-Nitrotoluene, dms., c.l., frt. alld lb .15 • —
dms., l.c.l., frt alld. lb. 16 • —
tanks, frt. alld. lb. .13 • —
p-Nitrotoluene, tech., cast, dms., c.l., works lb. .27½- —
dms., l.c.l., works lb. .28 • —
flake, dms., c.l., t.l., works lb. .27½- —
dms., l.c.l., works lb .28 • —
m-Nitro-p-toluidine, dms. lb. 1.25 • —
Nonylphenol, dms., c.l, frt. alld. lb. .22 • —
dms., l.c.l., frt. alld lb. .23 • —
tanks, frt alld. lb. .19½- —
Nonylphenol prices on shipments to Western States are 2c. higher.
Nutmegs, East Indian, whole, bgs. lb. 1.34 - 1.35
West Indian, bgs. lb. 1.28 - 1.29
Nutmeg oil, USP, dist., East Indian, cns lb. 9.00 -12.00
West Indian, cns. lb. 9.00 -12.00

Nux vomica, bls. lb. .20 • —
Powd., bbls., bxs. lb. .20 • .22

O

Ocher (see Iron oxide yellow, nat.).
Ocotea cymbarum oil, dms lb. .48 • .53
Octane, indust., tanks, Bayonne, N.J. gal. .20 • —
Borger, Tex. gal. .15¾- —
1-Octanol, tech., dms., c.l., dlvd., Zone 1 lb. .43½- —
dms., l.c.l., dlvd. Zone 1—lb. .45½- —
tanks, dlvd., Zone 1 lb. .41 • —
Octyl alcohol, perfumers grade, bots. lb. 1.60 - 3.25
Octyl alcohol, tech, (see 1-Octanol, tech).
tert-Octylamine, dms., c.l., t.l., f.o.b. works lb. .54½- —
dms., l.c.l., same basis lb. .55 • —
Octyl phenol, bgs., c.l., works lb. .22 • —
bgs., l.c.l., works lb. .22½- —
tanks, works lb. .21 • —
Octyl phenol in dms., 11c. higher.

OILS
Oil quotations are listed individually. For example, prices on Oil, coconut, may be found in the C's under Coconut oil.

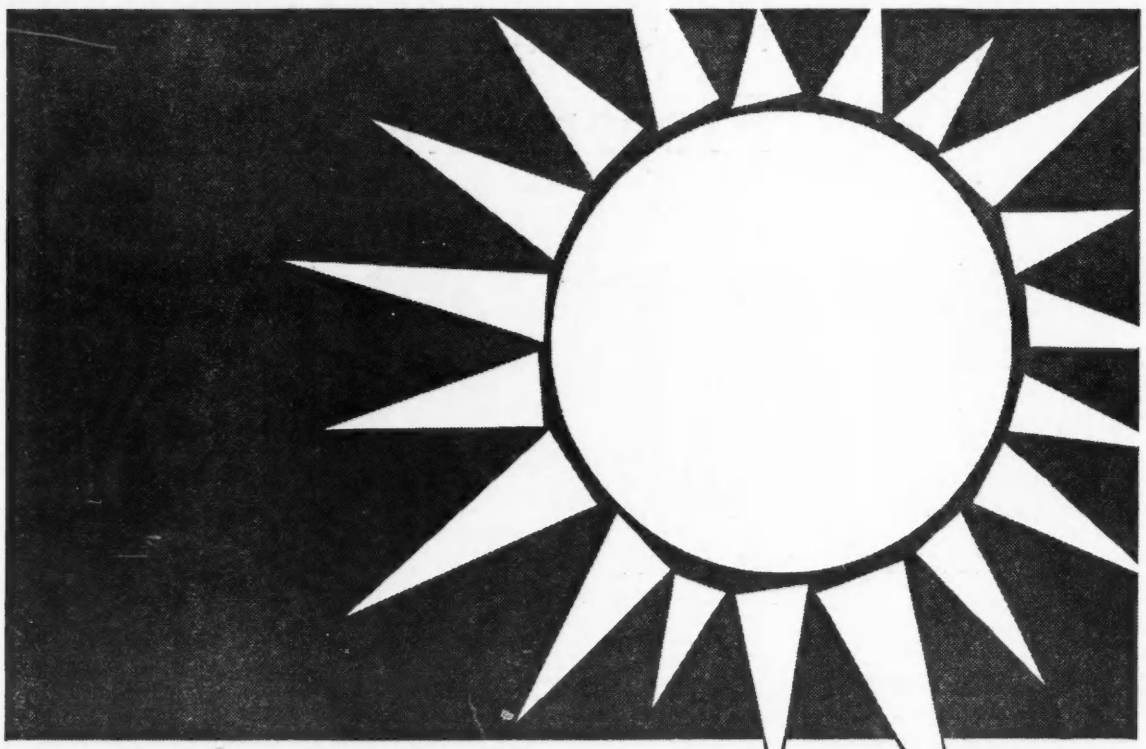
Oiticica oil, liq., dms. lb. .16 • .16½
tanks lb. .14 • —
Oleic acid, dbl.-dist. (white), dms. lb. .17½- .20
tanks lb. .15 • —
S.d., dms. lb. .16¼- .18¾
tanks lb. .13¾- —
Oleo oil, extra, dms. lb. .14½- .14¾
Oleostearine, dms. lb. .12½- .12¾
Oleum (see Sulfuric acid, fuming).
Olibanum gum, siftings, cs lb. .15 • .20
Tears, cs. lb. .22 • .30
Olibanum oil, bots lb. 5.00 - 7.65
Extra fine, bots lb. 8.00 - 9.50
Olive oil, edible, dms., spot, duty-paid gal. 2.30 - 2.35
Olivine, crude, works ton.12.00 • —
20 mesh, works ton.15.00 • —
100 mesh works ton.20.00 • —
Opium, USP, cns., 25-lbs., f.o.b. works oz.19.20 • —
gran., cns., 50 lbs., same basis. oz.21.63 • —
powd., cns., 50 lbs., same basis. oz.21.65 • —
Orange oil, expressed, USP, Calif., cns., dms lb. .70 • .90
Calif., sweet., cns., dms lb. .60 • —
Florida, cns., dms. lb. .45 • .50
Messina, cns. lb. 3.25 - 5.00
West Indian, bitter, cns., dms., lb. 2.50 - 3.50
Orange peel, bitter, Haitian, bls lb. .18 • .20
Sweet lb. .28 • .30
Origanum oil, Spanish, cns. lb. 1.80 - 2.30

ORANGE PIGMENTS
Orange pigment quotations are listed individually. For example, prices on Orange, chrome, may be found in the C's under Chrome orange.

Orris root, Florentine, bls. lb. .55 • —
powd., bbls., bxs. lb. .65 • —
Verona, bls. lb. .35 • —
powd., bbls., bxs. lb. .45 • —
Orthoanisidine (see o-Anisidine).
Orthochlorobenzaldehyde (see o-Chlorobenzaldehyde).
Orthochloroaniline (see o-Chloroaniline).
Orthochlorobenzoic acid (see o-Chlorobenzoic acid).
Orthochloroparanitroaniline (see 2-Chloro-4-nitroaniline).
Orthochlorophenol (see o-Chlorophenol).
Orthocresol (see o-Cresol).
Orthocresotinic acid (see 2,3-Creosotic acid).
Orthodichlorobenzene (see o-Dichlorobenzene).
Orthonitroaniline (see o-Nitroaniline).
Orthonitrochlorobenzene (see o-Nitrochlorobenzene).
Orthonitroparachlorophenol (see 2-Nitro-4-Chlorophenol).
Orthonitrophenol (see o-Nitrophenol).
Orthonitrotoluene (see o-Nitrotoluene).
Orthophenetidine (see o-Phenetidine).
Orthophenylphenol (see o-Phenyl phenol).
Ortho-tertiary amylphenol (see o-tert-Amylphenol).
Orthotolidine (see o-Tolidine base)
Orthotoluidine (see o-Toluidine).
Ouabain, USP, bots. gram 3.00 4.00
Ouricury wax, crude, bgs. lb. .54 • .55
Refd., pure, bgs. lb. .60 • .62
Oxalic acid, bgs., c.l., works lb. .18 • —
bgs., 10,000-lb. lots, works lb. .19 • —
bgs., smaller lots, works lb. .20½- —
Oxalic acid in drums is priced ½c. per lb. higher.
b-Oxynaphthoic acid, pigment manufacture, dms., frt. alld lb. .912 • —
Dyestuff manufacture, dms., same basis lb. 1.03 - 1.14
Oxyquinolin sulfate, cns., 100-lb. lots, works lb. 4.75 - 5.00
cns., smaller lots, works lb. 4.92 - 5.17

P

Palm oil, clarif., dms lb. .1440- .1540
tanks lb. .1150- —
Palm oil acid, dist., dms. lb. .15¾- 19¼
tanks lb. .13¾- .14¼
Palmarosa oil, cns. lb. 4.45 6.00
Papain, powd. bots. lb. 5.50 -10.00
Papaverine hydrochloride, nat. or syn., USP, cns., 25-oz. to 100-oz. lots oz. 5.00 • —
cns., smaller lots oz. 5.05 - 5.20
Papaverine sulfate, nat. or syn., USP, cns oz. 7.10 - 7.35
Paprika, Bulgarian, bgs. lb. .27 • —
Hungarian, bgs. lb .29 • —
Spanish, bgs lb. .33 • —
Yugoslavian, bgs. lb. .29 • .30
Para-aminobenzoic acid (see p-Aminobenzoic acid).
Parachlorobenzoic acid (see p-Chlorobenzoic acid).
Paramethylphenylcinchonic acid (see Neocinchophen).
Paranitrobenzoic acid (see p-Nitrobenzoic acid).
Paratoluidinemetasulfonic acid (see p-Toluidine-m-sulfonic acid).
Para-aminophenol (see p-Aminophenol).
Parachlorophenol (see p-Chlorophenol).
Parachloro-orthonitroaniline (see 4-Chloro-2 nitroaniline).
Para-anisidin (see p-Ansidine).
Parachloraniline (see p-Chloraniline).
Parachlorobenzaldehyde (see p-Chlorobenzaldehyde).
Paracresol (see p-Cresol).
Paradibromobenzene (see p-Dibromobenzene).
Paradichlorobenzene (see p-Dichlorobenzene).
Para toner, red, bbls. lb. 1.21 • —
Chlorinated, kgs. lb. 1.36 • —
Paraffin, crude, scale, white, 123°-127°F., ASTM, tanks, refy. lb. .0655- —
Paraffin, fully refd., 122°-124°F., ASTM, tanks, refy lb. .0765- —
125°-127°F., ASTM, tanks, refy. lb. .0765- —
130°-132°F., ASTM, tanks, refy. lb. .0765- —
132°-134°F., ASTM, tanks, refy. lb. .0765- —
135°-137°F., ASTM, tanks, refy. lb. .0765- —
AMP temperatures are an arbitrary 3°F. higher than ASTM.
Paraffin oil, pale, 100-110 vis., at 100°F., tanks east coast refy gal. .14 • —
Paraffin wax (see Paraffin).
Paraformaldehyde, 91%, flake, bgs., c.l., frt. alld lb. .10 • —
bgs., l.c.l., frt. alld lb. .12 • .13
91% powd., bgs., c.l., ex whse lb. .1715- —
bgs., l.c.l., ex whse lb. .1865- —
USP-X, fib. dms., c.l. lb. .19 • —
fib. dms., 1,000-lb. lots lb. .20 • —
fib. dms., smaller lots lb. .21½- —
Paraldehyde, tech., 98%, 55-gal. dms., t.l., dlvd lb. .14 • —
55-gal. dms., l.c.l., dlvd lb. .15 • —
tanks, dlvd. lb. .11½- —
Paranitroaniline (see p-Nitroaniline).
Paranitrochlorobenzene (see p-Nitrochlorobenzene).
Paranitrotoluene (see p-Nitrotoluene).
Paranitrophenol (see p-Nitrophenol).
Paraphenetidine (see p-Phenetidine)
Paraphenylenediamine (see p-Phenylenediamine).
Paraphenylphenol (see p-Phenylphenol).
Para-tertiary-amylphenol (see p-tert-Amylphenol).
Para-tertiary butylphenol (see p-tert-Butylphenol).
Parathion, ethyl, dms., frt. alld lb. .84 • —
Parathion prices 2c. per lb. higher in West.
Paratoluenesulfonamide (see p-Toluenesulfonamide).
Paris green, dealers, 100 lb. dms., frt. alld lb. .45 • —
Passion flower herb, bls lb. .35 • .40
Patchouli oil, imp., cns. lb. 5.60 - 6.50
Peach kernel oil, USP (see Apricot kernel oil).
Peacock blue, fugitive, 100% color strength, 250-lb. bbls., dlvd. E. of Rockies lb. 1.00 • —
Peacock blue price 1c. higher W. of Rockies.
Peanut meal, old process, 45%, bgs., f.o.b. mills ton.57.00 -60.00
solvent, same basis ton.55.00 Nom.
Peanut oil, crude, tanks, f.o.b. mills. lb. .15½- —
Refd., dms. lb. .20¾- .21
tanks lb. .18¾- —
Pectin, dom., NF, citrus, powd., bbls. lb. 2.05 - 2.06
Dom., tech., powd., 150 jelly grade, bbls lb. 1.28 • —
Imp., Danish, bbls., ex whse lb. 1.28 • —
Pelargonic acid, dms., c.l., dlvd lb. .25 • —
ton lots, same basis lb. .27½- —
tanks, same basis lb. .23½- —
Penicillin, potassium, cryst., bulk, 1,000,000 units. .021 • —
Penicillin, procaine, cryst., bulk, 1,000,000 units. .023 • —



2-NITROPROPANE!

The remarkable solvent that brightens the day for more and more hard-working formulators.

2-NP ($CH_3CHNO_2CH_3$) is an extraordinarily versatile member of the CSC Nitroparaffin family. Its most important property is its strong solvent power for a wide variety of materials including many natural resins, synthetic resins, coating materials, dyes, organic chemicals and fats and oils. Of special interest is the co-solvent effect of 2-NP and/or toluol and alcohol, making it an outstanding solvent for many vinyl resins and acrylics. It is a superior solvent for epoxies and cellulosics.

2-NP is to the newer coatings what butyl acetate has been to nitrocellulose—an ideal solvent. 2-NP's evaporation rate permits maximum flow and leveling without delaying drying time.

Unlike ketones, 2-NP in vinyls eliminates problems of solvent residue and solvent odor, too. It has several safety features such as relatively high flash point and a high lower-flammability limit of vapors in air. Write for all the literature that details how CSC's 2-Nitropropane can brighten your day.

Evaporation Rate of 2-NP Compared to Other Solvents (volume)

Acetone	975
MEK	568
Toluol	197
MIBK	186
2-NP	110
n-Butyl Acetate	100
Xylol	60
Cellosolve	38
Isophorone	4.3

Flash Points (°F Tag Open Cup) of 2-NP Compared to Other Solvents

Acetone	16
MEK	30
Toluol	56
MIBK	81
Xylol	85
n-Butyl Acetate	92
2-NP	103
Cellosolve	126
Isophorone	202

Comparison of Lower Limit of Flammability of 2-NP With Other Solvents (% by volume in air)

MIBK	0.9
Xylol	1.0
Toluol	1.27
n-Butyl Acetate	1.7
MEK	1.8
Acetone	2.15
2-Nitropropane	2.6
Cellosolve	2.6

INDUSTRIAL CHEMICALS DEPARTMENT
COMMERCIAL SOLVENTS CORPORATION
260 MADISON AVENUE, NEW YORK 16, N. Y.
OFFICES IN PRINCIPAL CITIES

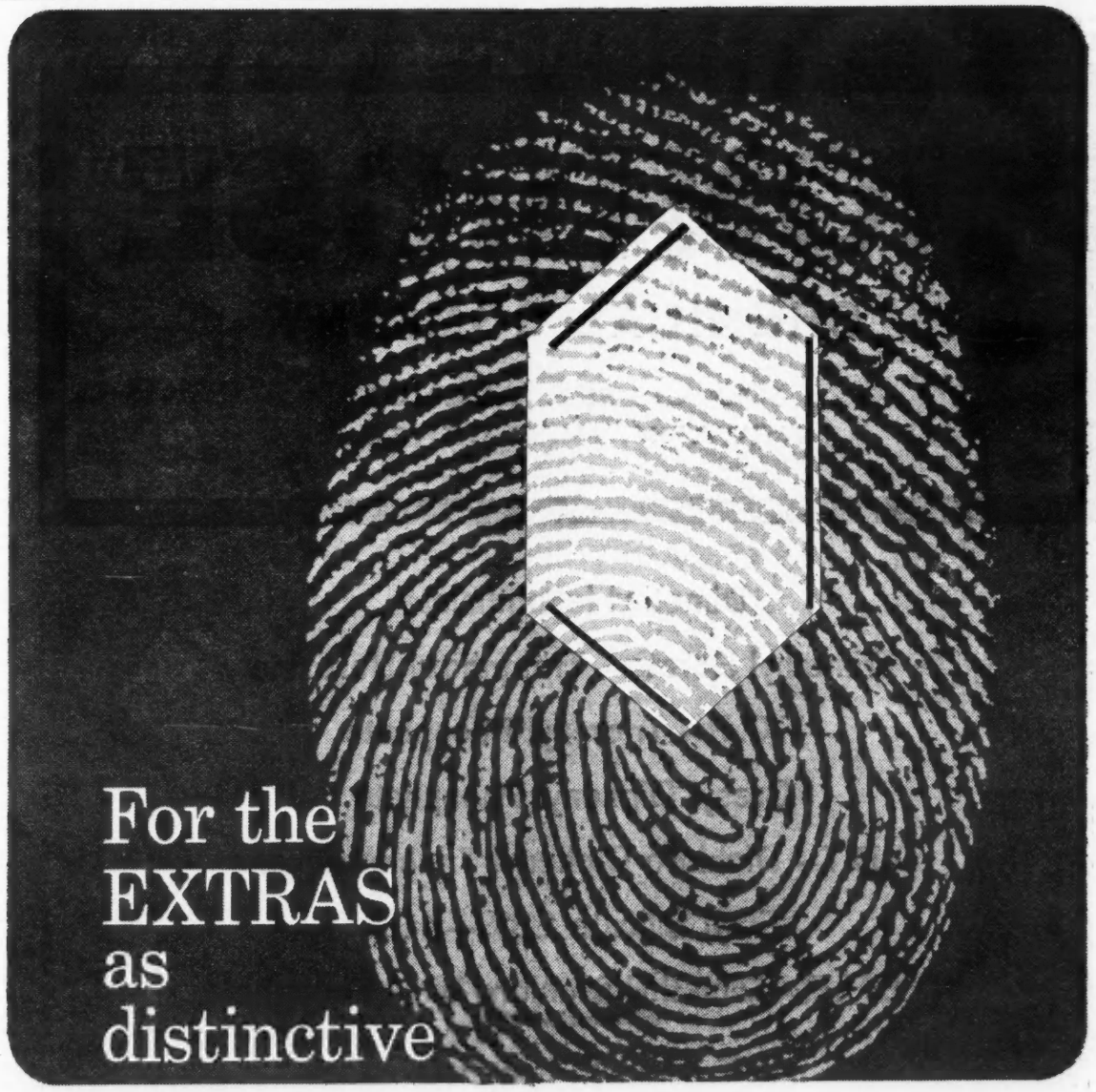
Pennyroyal oil, USP, imported, ens. lb. 1.95 - 2.70
Pentachlorophenol, bgs., c.l., t.l., works, frt. equald. lb. .21 - —
bgs., l.c.l., same basis lb. .22½ - .29
Pentachlorophenol in dms. 1c. higher.
Pentaerythritol, tech., bgs., c.l., dlvd. lb. .31 - —
bgs., l.c.l., dlvd. lb. .32 - —
Pentaerythritol, di- and tri-isomers (see Dipentaerythritol and Tripentaerythritol).
Pentane, indust., tanks, Tex. refy. gal. .14 - —
Pentobarbital, dms., 100 lbs. or more lb. 6.00 - —
Pepper, black, Malabar, bgs. lb. .52 - —
Lampong, bgs. lb. .52 - —
Red, Funtuas, bgs. lb. .32 - —
Japanese, Hontoka, bgs. lb. .37½ - —
Santaka, bgs. lb. .31½ - —
Sudanese, bgs. lb. .36 - —
White, Muntok, bgs. lb. .78 - —
Peppermint leaves, dom., USP, bls., dms. lb. .70 - .75
Imp., USP, bls. lb. .85 - —
Peppermint oil, nat., dms. lb. 4.25 - —
Redist., USP, dms lb. 4.35 - —
Perchloroethylene, dms., c.l., or t.l., dlvd. lb. .13½ - —
dms., l.c.l., dlvd. lb. .15¼ - —
tanks, dlvd. lb. .11¾ - —
tanktruck, 1,000 gal. min. dlvd. lb. .12¼ - —
Peri acid, dry, bbls., frt. alld. lb. 1.60 - —
Paste, bbls., frt. alld. lb. 1.55 - —
Peru balsam, dms. lb. 1.10 - 1.50
Persic oil, USP (see Apricot kernel oil).
Petitgrain oil, South American, cns., dms. lb. 2.40 - —
Petrolatum, cream, dms., c.l., refy. lb. .08125- —
dms., l.c.l., dlvd. lb. .10125-.11375
tanks, refy. lb. .05875- —
Extra amber, dms., c.l., refy. lb. .07125- —
dms., l.c.l., dlvd. lb. .09125-.10375
tanks, refy. lb. .04875- —
Petrolatum, lily white, dms., c.l., refy. lb. .08625- —
dms., l.c.l., dlvd. lb. .10625- .12
tanks, refy. lb. .06735- —
USP, snow white, dms., c.l., refy. lb. .09125- —
dms., l.c.l., dlvd. lb. .11125- .125
tanks, refy. lb. .06875- —
Petrolatum, USP, soft yellow, dms., c.l., refy. lb. .07125- —
dms., l.c.l., dlvd. lb. .095 - .10375
tanks, refy. lb. .04875- —
Petroleum pitch (see Asphalt, petroleum).

PETROLEUM PRODUCTS
Petroleum product quotations are listed individually. For example, prices on Petroleum, mineral spirits, may be found in the M's under Mineral spirits, petroleum.

Petroleum sulfonate, oil soluble, 60-62% sulfonic content, non-ret. dms., c.l., works. lb. .16½- .18¾
non-ret. dms., l.c.l., works lb. .17½- .19
tanks, works lb. .14½- .17
50-55% sulfuric content, non-ret. dms., c.l., works lb. .16 - —
non-ret. dms., l.c.l., works lb. .17 - —
tanks, works lb. .13 - —
o-Phenetidine, dms., c.l., frt. alld. E. lb .91 - —
dms., l.c.l., same basis lb. .93 - —
p-Phenetidine, dms., c.l., frt. alld. lb. 1.03 - —
dms., same basis lb. 1.08 - —
Phenobarbitol, USP, dms., 100-lbs., frt. alld lb. 3.25 - —
Phenobarbital-Sodium (see sodium phenobarbital).
Phenol, 90-92% (cresol 8-10%), non-ret. dms., frt. alld. E. of Rockies lb. .16¾- —
non-ret. dms., l.c.l., same basis. lb. .17¾- —
tanks, same basis lb. .14¾- —
82-84% (cresol 16-18%) non-ret. dms., c.l., same basis lb. .16½- —
non-ret dms., l.c.l., same basis. lb. .17½- —
tanks, same basis lb. .14½- —
30°C., or above, tar dist., non-ret. dms., c.l., same basis lb. .18 - —
Phenol, 30°C., or above, tar dist., non-ret. dms., l.c.l., same basis. lb .19 - —
tanks, same basis lb. .16 - —
USP, syn., dms., c.l., t.l., frt. alld. lb. .18½- —
dms., same basis lo. .20½- —
tanks, same basis lb. .16½- —
Phenolphthalein, USP or yellow, 250-lb. dm., 2,000 lbs., frt. alld. lb. 1.30 - —
250-lb. dm., same basis lb. 1.35 - —
Phenothiazine drench, fib. dms., t.l., dlvd. lb. .44 - —
fib. dms., l.t.l., same basis lb .47 - —
NF, fib. dms., t.l., same basis lb. .43 - —
fib. dms., l.t.l. same basis lb. .46 - —
Phenyl acetate, dms., 100-lb. lots, works lb. .50 - —
Phenyl salicylate (see Salol).
Phenylacetaldehyde, soln., 50%, bots. lb. 2.35 - —
100%, bots. lb. 4.00 - 4.65
Phenylacetic acid, pure, cryst., cns. lb. 1.25 - 1.75
dl-Phenylalanine, dms., works lb. 27.00 -37.50
l-Phenyl-3-carbethoxy pyrazolone-5, fib. dms., 200-lb. lots, dlvd. E. lb. 3.45 - —
fib dms., smaller lots, dlvd. E. lb. 3.80 - —
N-Phenyldiethanolamine, dms., c.l., dlvd. E. lb. .41 - —
dms., l.c.l., dlvd. E. lb. .42½- —
tanks, dlvd. E. lb. .38½- —
m-Phenylenediamine, dms., frt. alld. lb. 1.10 - —
o-Phenylenediamine, coml. fib. dms, 100 to 1,000 lbs., works. lb. 1.70 - 1.80
p-Phenylenediamine, tech., dms, works lb. 1.55 - —
Phenylethanolamine, dms., c.l., works lb. .75½- —
dms., l.c.l., same basis lb. .77 - —
Phenylethyl acetate, bots. lb. 1.25 - 1.40
2-Phenylethyl alcohol, extra, dms. lb. 1.14 - 1.50
Standard, dms. lb. 1.10 - 1.60
b-Phenylethylamine, dms., 20,000 lbs. or more, frt. alld. lb. 1.50 - —
dms., smaller lots, frt. alld. lb. 1.70 - 1.85
Phenylethylphenyl acetate, bots. lb. 4.00 - 4.25
Phenylglyconic acid (see Mendelic acid).
Phenylhydrazine, 97%, 450-lb. dms. lb. 1.45 - —
1-Phenyl-3-methyl pyrazolone-5, fib. dms., 250-lb. lots, dlvd. E. 1.80 - —
fib. dms., smaller lots, dlvd. E. lb. 2.10 - —
o-Phenylphenol, dms., l.c.l., works. lb. .48 - .50
p-Phenylphenol, bgs., c.l., works lb. .38½- —
bgs., l.c.l., works lb. .43 - —
Philippine copal gum, pale, chips, bgs. lb. .33¾- .36
nubs, bgs. lb. .33¾- .37
seeds, bgs. lb. .20 Nom.
sorts, bgs. lb. .20 - .24
Phloroglucinol, coml., fib. dms., works lb. 6.40 - —
CP, bots., works lb. 17.75 - —
Resub., fib dms., works lb. 10.45 - —
Phloxin red toner (see Eosin red toner).

Phosgene, ref. cyls., works lb. .15½- —
Phosphate, defluorinated (see under D).
Phosphate rock, Curacao, Atlantic ports, New Orleans ton. 48.00 - —
Phosphate rock, Florida, land pebble, run-of-mine, washed, dried, unground, 66-68%, b.p.l., bulk, c.l., mines. short-ton. 5.298 - —
68-70%, b.p.l., bulk, c.l., same basis short-ton. 5.648 - —
70-72%, b.p.l., bulk, c.l., same basis short-ton. 6.228 - —
74-75%, b.p.l., bulk, c.l., same basis short-ton. 7.128 - —
76-77%, b.p.l., c.l., bulk, same basis short ton. 8.018 - —
Above Florida prices are based on fuel oil at $2.37 per bbl. and labor at $1.59.
Phosphoric acid, food grade, 75%, cbys., c.l., works, E., frt. equald 100 lbs. 7.00 - —
cbys., l.c.l., same basis 100 lbs. 7.25 - 7.75
tanks, t.w., works 100 lbs. 5.60 - —
80%, cbys., c.l., frt. equald 100 lbs. 7.85 - —
cbys., l.c.l., works 100 lbs. 8.10 - 9.35
tanks, t.w., works 100 lbs. 6.00 - —
NF, 85%, cbys., c.l., works. 100 lbs. 8.50 - —
cbys., l.c.l., works 100 lbs. 8.75 - 9.00
tanks, t.w., works 100 lbs. 6.65 - —
Phosphorus, amorph., red, dms., t.l., works lb. .55 - —
dms., smaller lots, works lb. .56 - .57
white (yellow), solid, dms., c.l., works, frt. equald lb. .20 - .20½
dms., l.c.l., works, frt. equald lb. .21½- —
tanks, works, frt. equald. lb. .19 - —
Phosphorus oxychloride, dms., c.l., works lb. .14 - —
dms., l.c.l., works lb. .15 - —
tanks, works, frt. equald. lb. .12½- —
Phosphorus pentasulfide, powd., dms., c.l., works lb. .13¼- —
dms., l.c.l., works lb. .14½- .15½
Solid, dms., c.l., works lb. .11½- —
dms., l.c.l., works lb. .12½- .13½
Phosphorus pentoxide, dms., c.l., works lb. .1375- .1475
dms., l.c.l., works lb. .1475- .1675
Phosphorus sesquisulfide, dms., cs., c.l., works lb. .38 - —
dms., l.c.l., works lb. .39 - .40
Phosphorus trichloride, dms., c.l., works lb. .14 - —
dms., l.c.l., works lb. .15 - —
tanks, works lb. .12½- —
Phthalic anhydride, bgs., c.l., works, frt. equald lb. .19 - .23
bgs., l.c.l., same basis lb. .20 - .24
tanks, same basis lb. .18½- .22½
Phthalimide, 97-98%, dms., frt. alld lb. .63 - —
Phthalocyanine blue, full strength, bbls., dlvd. E. of Rockies. lb. 2.90 - —
Resinated, bbls., same basis lb. 2.75 - —
Water dispersable, bbls., same basis lb. 1.52 - —
Pythalocyanine blue prices 1c. higher W. of Rockies.
Phthalocyanine green toner, bbls., works lb. 3.35 - —
Resinated, bbls. lb. 3.00 - —
Water dispersable, bbls. lb. 1.71 - —
Phthalocyanine green prices 1c. higher W. of Rockies.

Phthalylsulfacetamide, fib. dms., 1,000-lb. lots or more lb. 5.00 - —
NF, fib. dms. lb. 5.20 - —
a-Picoline, dms., c.l., works, frt. equald lb. .42 - .46
dms., l.c.l., works, frt. equald lb. .422 - .46½
tanks, same basis lb. .41½- .43
b-Picoline, 98%, dms., t.l., works. lb. 1.05 - —
dms., l.c.l., same basis lb. 1.15 - —
tanks, same basis lb. .95 - —
b,g-Picoline, 5°C, dms., c.l., works. lb. .32½- —
dms., l.c.l., works lb. .33 - —
g-Picoline, dms., t.o.b., works lb. 1.60 - —
tanks, t.l., same basis lb. 1.50 - —
Picric acid, NF, bbls. lb. .85 - —
Tech., bbls. lb. .44 - —
Pigment green B, kgs. lb. 1.50 - —
Pilocarpine hydrochloride, USP, bots oz. 5.25 - —
Pilocarpine nitrate, USP, bots., vials. oz. 5.15 - —
Pimento, Jamaincan, bgs. lb. .68½- —
Mexican, bgs. lb. .56 - —
Pimento berry oil, NF, dms. lb. 3.75 - 9.25
Pimento leaf oil, crude, cns. lb. 2.20 - 2.60
Pine oil, dest.-dist., dms., l.c.l. works lb. .15 - —
dms., l.c.l. ex whse. New York. lb. .173 - —
Steam-dist., dms., ex whse., New York lb. .185 - —
dms., dlvd. lb. .188 - —
Pineneedle oil, Siberian (see Abies Siberoca oil).
Pink root, bls. lb. 1.75 - —



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HIGH PURITY PHENOLS, CRESOLS, CRESYLIC ACIDS • RUBBER CHEMICALS • ARYL MERCAPTANS

Piperazine—Potassium-Magnesium Sulfate

Piperazine, anhyd., dms., c.l., frt. alld. lb. 1.80 • —
dms., l.c.l., same basis..... lb. 1.85 • —
Piperazine citrate, 36%, dms., 1,000 lbs. or more, frt. alld. lb. 1.15 • —
Piperazine dihydrochloride, 51%, dms., 1,000 lbs. or more, frt. alld lb. 1.23 • —
Piperazine hexahydrate, 44%, dms., 1,000 lbs or more, frt. alld lb. .86 • —
dms., 200-900 lbs., frt. alld .. lb. .89 • —
Piperazine phosphate, 42%, dms., 1,000 lbs. or more, frt. alld lb. 1.06 • —
Piperidine, dist., 98% min., dms., c.l., t.l., frt. equald .. lb. 2.55 • —
Piperonyl butoxide, dms., dlvd. E.lb. 4.50 • 5.05

PITCHES

Pitch quotations are listed individually For example, prices on Pitch, soybean, may be found in the S's under Soybean pitch.

Platinum metal, works ..... oz.81.00 -85.00
Pleurisy root, bls. ..... lb. .45 • .50
Podophyllum resin, NF, dms. .... lb.12.50 • —
Poke root, bls. ..... lb. .19 • .22
Polymyxin, bots., bulk., 50 billion units or more 1,000,000 units. .52 • —
bulk, bots., 25-50 billion units. 1,000,000 units. .54 • —
bulk, bots., 1-25 billion units. 1,000,000 units. .56 • —
Polyoxyethylene sorbitan monostearate, dms., 20,000-lb. lots, works lb. .42 • —
dms., 10,000-20,000-lb. lots, works. lb. .44 • —
dms., smaller lots, works ..... lb. .47 • .49
Polyoxyethylene sorbitan tristearate, dms., 20,000-lb. lots, works lb. .42 • —
dms., 10,000-20,000-lb. lots, works lb. .44 • —
dms., smaller lots, works ..... lb. .47 • .49
Pontianak copal gum, chips, bgs lb. .25 • —
Nubs, bgs. ..... lb. .37 • .40
Poppy seed, Argentine, bgs. .... lb. No stocks.
Dutch, bgs. ..... lb. .18 • —
Danish, bgs. ..... lb. .16½- —
Polish, bgs. ..... lb. .17½- —
Turkish, bgs. ..... lb. .13½- —
Potash, caustic, liq., 45% basis, dms., c.l., works 100 lbs. 4.25 • —
dms., l.c.l., same basis.100 lbs. 5.25 • —
tanks, same basis ..... 100 lbs. 3.70 • —
reg., flake, 88-92%, dms., c.l., same basis 100 lbs. 9.55 • —
reg., flake, 88-92%, dms., l.c.l., same basis 100 lbs.11.05 • —
solid, 88-92%, dms., c.l., works. 100 lbs. 9.10 • —
dms., l.c.l., works ..... 100 lbs.10.60 • —
Potassium acetate, NF, 200-lb. dm., f.o.b. works, E lb. .31 • —
Potassium bicarbonate, USP, gran. dms. lb. .22 • —
powd., dms. ..... lb. .24 • —
Potassium bichromate, gran., bgs., c.l., t.l., works lb. .18 • —
bgs., l.c.l., works ..... lb. .18½- .19¼
Potassium bichromate in dms. ¾c. higher.
Potassium bitartrate, NF, gran., powd., 100-lb. bgs., c.l., frt. equald lb. .37 • —
100-lb. bgs., 5,000 lbs., 1 shipt., same basis lb. .38 • —
100-lb. bgs., smaller lots, same basis lb. .40 • —
Potassium borohydride, powd., dms., works lb.16.00 -22.00
Pelletized potassium borohydride $1.25 per lb. higher in 1,000-lb. lots.
Potassium bromate, dms., 1,000-lb. lots or more, works lb. .50 • —
dms., smaller lots, works ..... lb. .52 • .62
Potassium bromide, USP, gran., bbls., kgs. lb. .39 • .40
Potassium carbonate, dom., NF, gran., bbls., dms lb. .20 • —
Dom., tech., powd., bbls., dms. lb. .21 • .22
Dom., calcinated, bgs., c.l., works. 100 lbs. 8.50 • —
bgs., l.c.l., same basis 100 lbs. 9.55 • —
Dom., hydrated, 83-85%, bgs., c.l., works 100 lbs. 7.10 • —
bgs., l.c.l., works .... 100 lbs. 8.15 • —
Potassium chlorate, cryst., dms., c.l., works lb. .12¼- —
dms., l.c.l., works ..... lb. .13½- .14½
Powd., dms., c.l., works ..... lb. .12¾- —
dms., l.c.l., works ..... lb. .14 • .15
works lb. .12¼- —
Potassium chlorate, NF, cryst., dms., 2,000 lbs. or more, works lb. .16¾- —
NF, gran., 25-lb. metal dms.... lb. .36 • —
NF, powd., dms., 2,000 lbs. or more, works lb. .17¼- —
Potassium chloride, indust., 99.9% KCl, bulk, c.l., works ton.29.00 • —
bgs., c.l., works ..... ton.33.50 • —
99.3% KCl, bulk, c.l., works.ton.28.00 • —
bgs., c.l., works ..... lb.32.50 • —
USP, cryst., dms. ..... lb. .20 • .22
USP, gran., dms. ..... lb. .21 • .23
USP, powd., dms. ..... lb. .24 • .26
Potassium chloride agricultural (see Potassium muriate).
Potassium chromate, tech., dms., works lb. .50 • .51
Potassium citrate, NF, gran., 250-lb. dms., f.o.b. works E lb. .43 • —
powd., 250-lb dms., same basis. lb. .46 • —
Potassium cyanide, dms., 20,000-lb. lots or more, works.... lb. .42½- —
dms., 2,000-19,999-lb. lots, works. lb. .43 • —
dms., smaller lots, works..... lb. .44 • .44½
Potassium dichromate (see Potassium bichromate).
Potassium ferricyanide, dms., ton lots, works lb. .50 • —
dms., smaller lots, works ..... lb. .65 • —
Potassium ferrocyanide, dms., ton lots lb. .24½- —
dms., smaller lots ..... lb. .29 • —
Potassium fluoborate, fib. dms., c.l., works lb. .30 • —
fib. dms., l.c.l., works ..... lb. .31 • —
Potassium fluoride, dms., works lb. .37 • .38
Potassium gluconate, 100-lb. dm., f.o.b. works E lb. 1.67 • —
Potassium gualacol sulfonate, NF, dms lb. 2.10 • 2.30
Potassium hydroxide, tech. (see Potash caustic).
Potassium hydroxide, USP, pellets, 100-lb. dms., 1 to 100-dm. lots lb. .33½- .38
Potassium hypophosphite, NF, fib. dms., 1,000-lb. lots lb. 1.38 • —
Potassium iodide, USP, cryst., gran., or powd., 250-lb. dm., f.o.b. works lb. 1.40 • —
Potassium manure salt, min. 20% K_2O, bulk, c.l., works. unit-ton. .17 • .1765
Potassium metabisulfite, gran., dms., lb. .16 • —
Powd., dms. ..... lb. .27 • —
Potassium muriate, standard, bulk, c.l., works unit-ton. .34 • .36
bagged 60% minimum K_2O, same basis ton.25.40 -26.60
Gran., bulk, c.l., works unit-ton. .35 • .37
bagged, 60% minimum K_2O, same basis ton.26.00 -27.20

Inside prices apply to material contracted for prior to July 1, 1959.

Outside prices apply to material contracted for after that date but also for delivery during the current month.

Potassium nitrate, NF, cryst., bbls., 20-ton lots 100 lbs.17.00 • —
bbls., smaller lots....100 lbs.18.00 -19.00
gran., bgs., 20-ton lots 100 lbs. 9.50 • —
bgs., smaller lots.....100 lbs.11.00 -12.00
powd., bgs., 20-ton lots 100 lbs.10.50 • —
bgs., smaller lots....100 lbs.12.00 -13.00
Potassium oxalate, neutral, tech., fine gran., powd., 300-lb. dm., f.o.b. works E lb. .32 • —
Potassium pentaborate, gran., dms., c.l., works ton.219.50 • —
dms., ton lots, ex whse....ton.311.00 • —
dms., smaller lots, ex whse. ton.316.00 • —
Powdered potassium pentaborate $10 per ton higher.
Potassium perchlorate, dms., c.l., works lb. .18½- —
dms., l.c.l., works..... lb. .19 • .20
Potassium permanganate, coml., kgs., works lb. .25 • .33
USP, dms., works..... lb. .29 • .35
Potassium persulfate, dms., c.l., works lb. .17½- —
dms., l.c.l., works..... lb. .18 • .21
Potassium pyrophosphate, tetrabasic, dms., works lb. .15½- .18½
Potassium prussiate red (see Potassium ferrocyanide).
Potassium prussiate yellow (see Potassium ferro-cyanide).
Potassium silicate, electrical grade, 30° Be, 1.2.0, dms., c.l., works 100 lbs. 6.50 • —
dms., l.c.l., 5 dm. lots or more, works.....100 lbs. 7.25 • 7.65
tanks, works.....100 lbs. 6.15 • —
Potassium silicate, electrical grade, 40.5° Be, 1:2.1, dms., c.l., works 100 lbs. 5.95 • —
dms., l.c.l., 5 dm. lots or more, works 100 lbs. 6.70 • —
tanks, works.....100 lbs. 5.60 • —
Potassium silicate, glass grade, bgs., c.l., works 100 lbs.17.30 -18.00
bgs., l.c.l., works.....100 lbs.17.80 • —
Soln., 29° Be, 1:2.5, dms., c.l., works 100 lbs. 4.95 • —
dms., l.c.l., 5-dm. lots or more, works 100 lbs. 5.70 • —
tanks, works .....100 lbs. 4.60 • —
Potassium silicofluoride, bgs., works. lb. .09½- .10

Potassium silicofluoride in drums, 0.4c. per lb. higher.

Potassium stannate, dms., frt. alld. E lb. .784 • .857
Potassium sulfate, min. 50% K_2O, agricultural, bulk, c.l., works unit-ton. .62½- .64½

Inside price applies to tonnage contracted for prior to July 1, 1959.

Outside price applies to tonnage contracted for after that date but also for delivery during the current month.

Potassium sulfate, NF VII, cryst., dms., lb. .31 • .33
NF VII, gran., dms..... lb. .18½- —
NF VII, powd., dms..... lb. .16 • .17
Potassium sulfocyanate, NF, cryst., (see Potassium thiocyanate).
Potassium thiocyanate, NF, cryst., dms., works lb. .96 • .98
Tech., dms., works..... lb. .77 • .79
Potassium titanate, ctns., c.l., works. lb. .16¼- —
ctns., 5-ton lots, works..... lb. .16½- —
ctns., 1-ton lots or less, works lb. .16¾- —
Potassium-magnesium sulfate, basis 40% K_2SO_4 and 18% MgO, bulk, works, base price. ton.13.45 • —
bulk, works, July forward..ton.14.00 • —

MONTROSE

CHEMICAL COMPANY

100 LISTER AVENUE
NEWARK, NEW JERSEY

Dimethyl Isophthalate

Trimethyl Borate — Trimethoxy Boroxine

T.C.P.— Tricresyl Phosphate

Cresyl Diphenyl Phosphate

D.D.T.— Dichloro Diphenyl Trichloroethane

Ethyl Silicate 28% — 40%

D.D.V.P.— Dimethyl Dichloro Vinyl Phosphate
(Minimum 95% Purity)

Triphenyl Phosphate

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Potassium-sodium tartrate, NF, gran. or powd., 250-lb. dms., c.l., works E..lb. .42¼- —
250-lb. dms., 5,000-lb. lots, same basis..lb. .43 - —
250-lb. dms., same basis..lb. .43½- —
Potassium-titanium fluoride, fib. dms., works..lb. .39 - .40
Potassium-zirconium flouride, fib. dms., c.l., works..lb. .50 - —
fib. dms., l.c.l., works.....lb. .52½- .53
Pregnenolone, bots. .....gram. No prices.
Pregnenolone acetate, bots. ..gram. No prices.
Procaine hydrochloride, USP, antibiotic grade, dms., 2,000-lb. lots, frt. alld..lb. 2.25 - —
USP, ampule grade, dms., 1,000-lb. lots, frt. alld..lb. 2.40 - —
dms., 500 lbs.....lb. 2.45 - —
dms., 100 lbs.....lb. 2.50 - —
Progesterone, USP, bots.....gram. No prices.
Pregnenolone acetate, bots....gram. No prices.
Propenyl guaethol, dms. .....lb.24.30 -27.00
b-Propriolactone dms., c.l., t.l., f.o.b. works..lb. .89 - —
dms., l.c.l., t.l., same basis....lb. .90 - —
tanks, same basis .....lb. .87 - —
Propionic acid, syn., pure, dms., c.l., works..lb. .23¼- —
dms., l.c.l., works .....lb. .24¾- —
tanks, works .....lb. .20¾- —
n-Propyl acetate, dms., c.l., dlvd. lb. .14¾- —
dms., l.c.l., dlvd.....lb. .16¼- —
tanks, dlvd. .....lb. .12¼- —
n-Propyl alcohol, dms., c.l., dlvd..lb. .14 - .15
dms., l.c.l., dlvd.....lb. .15½- .16½
tanks, dlvd. .....lb. .11½- .12½
n-Propyl gallate, dms., 100 to 2,000-lb. lots, works..lb. 3.90 - 4.40
n-Propyl-p-hydroxbenzoate, USP, dms..lb. 2.30 - 2.40
Propyl thiouracil, bots., 50 kilo lots or more..kilo.55.00 - —
bots., smaller lots.....kilo.55.10 -55.30
n-Propylamine, dms., c.l., dlvd..lb. 1.24 - —
dms., l.c.l., same basis.....lb. 1.255 - —
n-Propylene dichloride, consumers', dms., c.l., dlvd. E..lb. .0845- —
dms., l.c.l., same basis.....lb. .0995- —
tanks, same basis.....lb. .07 - —
Propylene dichloride prices in West 1c. higher, same basis.
Propylene glycol, indust., dms., c.l., dlvd. E..lb. .15 - —
dms., l.c.l., same basis.....lb. .16¾- —
tanks, same basis.....lb. .12½- —
USP, dms., c.l., dlvd. E.....lb. .17 - —
dms., l.c.l., same basis.....lb. .18¾- —
Propylene glycol methyl ether, dms., c.l., dlvd..lb. .20 - —
dms., l.c.l., same basis.....lb. .21 - —
tanks, same basis.....lb. .18½- —
Propylene oxide, dms., c.l., dlvd. E. lb. .17 - —
dms., l.c.l., dlvd. E.....lb. .18½- —
tanks, dlvd. E.....lb. .14½- —
Psyllium seed, black, bgs.....lb. .30 - .35
Blonde, bgs. .....lb. .18 - .20
Husks, bgs. ... .lb. .42 - .45
Pumice, dom., grd., coarse to fine, 0, ½, 1, 1½, 2, 3, bgs., ton lots..lb. .03¾- .04¼
bgs., smaller lots.....lb. .03⅞- —
Imp., Italian, silk-screen, coarse, bgs, ton lots..lb. .06½- —
fine, bgs., ton lots.....lb. .04 - —
sun dried, coarse, bgs..ton.60.00 - —
fine, bgs. .....ton.60.00 -70.00
Pumpkin seed, bgs.....lb. .25 - .26
Pyrethrins, syn. (see Allethrin).
Pyrethrum flowers, fine grd., 0.9% pyrethrins, bgs., ton, works..lb. .50 - —
Powd., 1.3% pyrethrins, bgs., ton, works..lb. .71 - —
Pyrethrum liquid, 20/1 basis (2 grams pyrethrins per 100cc odorless base), dms., works. gal. 9.60 - 9.80
Pyrethrum liquid, 100/1 basis (10 grams pyrethrine per 100cc odorless base), dms., works gal.45.90 -46.90
Pyrethrum oleoresin, dewaxed, 20%, dms., works..lb.11.00 -11.35
purif, 20%, dms., works....lb.11.00 -11.35
Pyridine, denat., dms., c.l., works and frt. equald..gal. 2.55 - —
dms., l.c.l., same basis.....gal. 2.70 - —
Refd., 2°, non-ret. dms., c.l., same basis..lb. .69½- —
dms., l.c.l., same basis.....lb. .70 - —
tanks, same basis.....lb. .65 - —
Pyridoxine hydrochloride, USP, 500-gram bots., dms., f.o.b. works..kilo.95.00 -100.00
Pyrites, Canadian, 48-50% S, mines, long-ton. 5.00 - 6.00
Pyrocatechol (see Catechol).
Pyrogallic acid, NF (see Pyrogallol).
Pyrogallic acid, tech., bbls., 100-lbs., f.o.b., works..lb. 3.50 - —
Pyrogallol, NF, 100-lb. dms.....lb. 3.50 - —
Pyroxylin, USP, bots.....lb. 9.50 - —

Q

Quassia chips .....lb. .10 - —
Quicksilver (see Mercury metal).
Quince seed, bgs.....lb. 1.30 - 1.40
Quinidine sulfate, USP, 1,000-oz. dm..oz. .74½- —
Quinine, NF, 1,000-oz. dm .....oz. .3105- —
Quinine bisulfate, USP, 1,000-oz. dm. oz. .2330- —
Quinine hydrochloride, 1,000-oz. dm. oz. .3030- —
Quinine sulfate, USP, 1,000-oz. dm. oz. .2575- —
Quinoline, dms., c.l., frt. equald.lb. .50¾- —
dms., l.c.l., same basis.....lb. .51¼- —
tanks, same basis.....lb. .50 - —

R

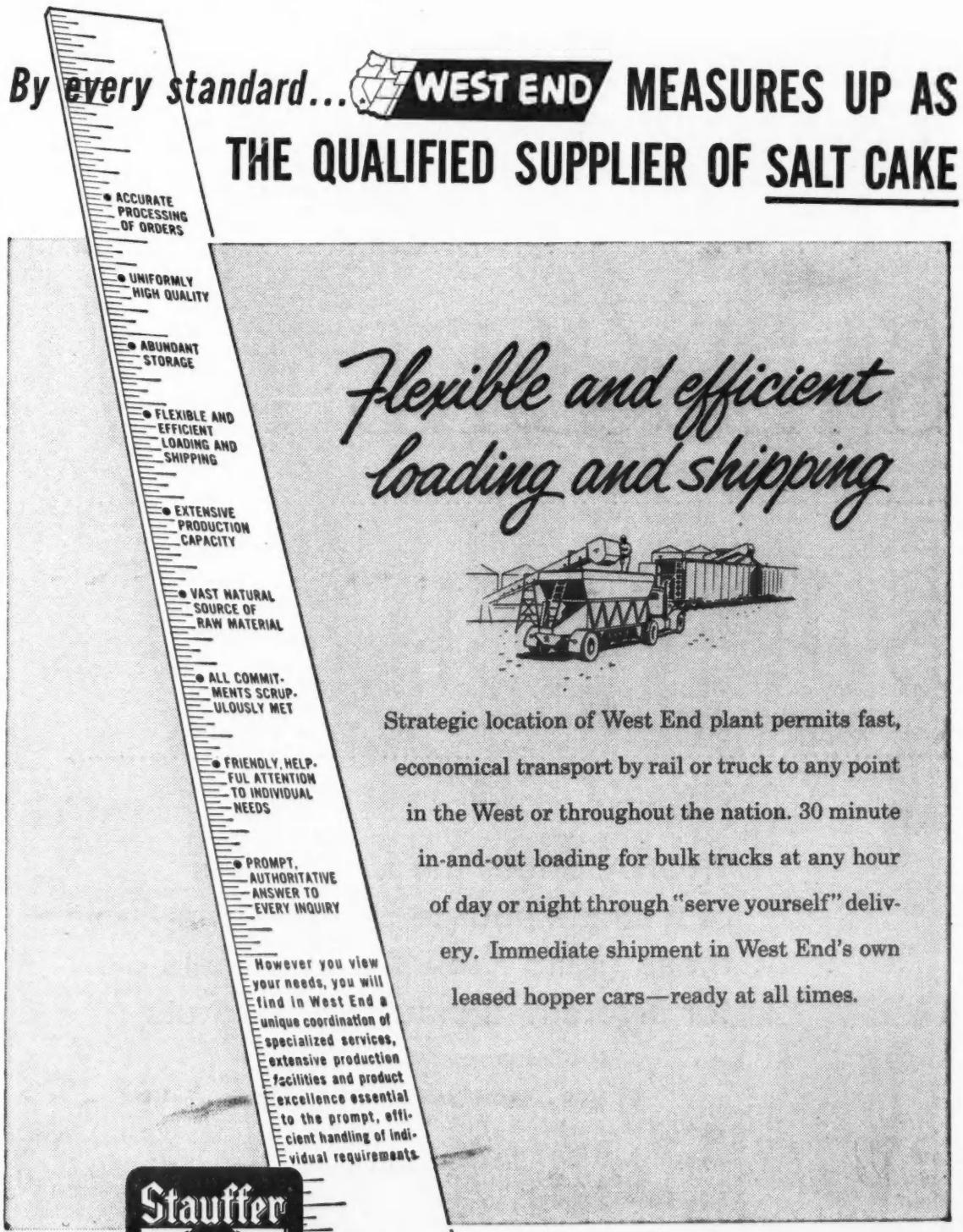
R salt paste, dms., frt. alld., 100% basis..lb. .98 - —
Powd., frt. alld, 100% basis..lb. 1.08 - —
Rapeseed oil, dms.....lb. .15 - .15½
tanks .....lb. .13 - —
Rare earth oxalate, NF, 45-50%, bgs, works..lb. 1.15 - —
Rauwolfia serpentina root, powd., bbls., dms..lb. 1.00 - 1.20
Red carmine, No. 40 (see Carmine).
Red oil (see Oleic acid).

RED PIGMENTS
Red pigment quotations are listed individually. For example, prices on Red, lithol toner, may be found in the L's under Lithol red toner.

Red precipitate (see Mercuric oxide, red).
Red toner, Lake C, alizanine, bbls., works..lb. 1.25 - —
Reserpine, cryst., bots.....gram. 1.25 - —
Resorcinol, tech grade, dms., c.l., works, frt. equald..lb. .77¼- —
dms., l.c.l., same basis.....lb. .78½- —
USP, powd., dms., works.....lb. 2.95 - —
Resorcinol monoacetate, NF, dms. lb. 2.50 - —
Rhatany root, bgs.....lb. .14 - .16
Rhodamine red toner, molybdated, PMA, kgs., works..lb. 6.00 - —
Tungstated, PTMA, works, kgs..lb. 6.60 - —
Rhodinol, 5-lb. cans.....lb.42.00 -51.00
Synthetic .....lb.14.00 -16.00
Rhubarb root, India, whole, bgs..lb. .25 - —
powd., bgs. .....lb. .35 - —
tanks, same basis .....lb. .14½- —
Riboflavin, USP, fib. dms., kilo or more, dlvd..kilo.36.00 - —
Riboflavin, 5-phosphate-sodium, fib. dms., kilo or more, dlvd. kilo.104.50 - —
Rice bran oil, clarified, dms., l.c.l. lb. .14 - .14½
tanks, dlvd. E.....lb. .12 Nom.
Ricinoleic acid (see Castor oil acids split).
Rochelle salt (see Potassium-sodium tartrate)
Roofing pitch (see Coaltar pitch roofing).
Rose oil, nat., Bulgarian, bots..lb.1,152.00- —
Turkish, bots. .....lb.560.00 -750.00
Rosemary oil, Spanish, NF, cns., dms..lb. .97 - 1.40
Spanish, tech., cns., dms.....lb. .50 - 1.20
Rosin gum and wood (see Naval Stores in Protective Coatings market).
Rotenone, fib. dms., works.unit-lb. .12 - —
Resin, 25-45%, fib. dms., works. unit-lb. .12 - —
Rottenstone, bgs., 5-ton lots, ex-whse..lb. .03¼- —
bgs., ton lots, same basis....lb. .04¼- —
Rubber solvent, petroleum, 115°F-245°F b.r., tankcars, New Jersey and New York.gal. .19 - —
Group 3 .....gal. .13875- —
Houston, Texas .....gal. .155 - —
Rue oil, bots.....lb. 2.75 - 3.00
Rutin, NF, fib. dms., 10 kilo lots. kilo.13.00 - —
fib. dms., 5 kilo lots.....kilo.13.50 - —
fib. dms., 1 kilo.....kilo.14.00 - —
Ryania, 100%, powd., bgs., c.l., works..lb. .22 - —
bgs., l.c.l., same basis....lb. .24 - —

S

S acid, bbls., works.....lb. 3.25 - —
Sabadilla seed, activated, ground with lime, bbls..lb. .42 - .44
Saccharin, calcium, fib. dms., 1,000-lb. lots, works..lb. 2.50 - —
USP, gran., soluble, dms., 1,000-lb. lots..lb. 1.40 - —
dms., smaller lots.....lb. 1.50 - —
USP, powd., soluble, insoluble, dms., 1,000-lb. lots..lb. 1.45 - —
dms., smaller lots.....lb. 1.55 - —
Saccharin, USP, powd., insoluble, dms., 1,000-lb. lots..lb. 1.43 - —
dms., smaller lots.....lb. 1.53 - —
Safflower oil, dms., New York..lb. .1753- .18
tanks, Atl. Coast.....lb. .1555- —
Saffron, Mancha Superior, tins..lb.20.50 - —
Safrol, dms. .....lb. .65 - —
Sage, Dalmatian, bgs.....lb. .40 - —
Greek, cns. .....lb. .15 - —
Italian, cns. .....lb. .18 - —
Sage oil, clary, bots.....lb.15.50 -18.00
Dalmatian, cns. .....lb. 2.85 - 3.25
Spanish, cns. .....lb. 1.25 - 1.75
Sal soda (see Soda sal).
Salicylaldehyde, dms., c.l., t.l., f.o.b., plant, frt. equald..lb. 1.23 - —
dms., l.c.l., same basis .....lb. 1.25 - —
Salicylamide, 100-lb. dms .....lb. 1.05 - —
Salicylic acid, tech., fib. dms., c.l., t.l., dlvd..lb. .40½- —
fib. dms., l.c.l., dlvd .....lb. .44¾- —
Salicylic acid, USP, cryst., 200-lb. fib. dms., 1,000 lbs. or more..lb. .51¾- —
200-lb. fib. dms., less than 1,000 lbs..lb. .54¾- —
100-lb. fib. dms., 1,000 lbs. or more..lb. .53¾- —
100-lb. fib. dms., less than 1,000 lbs..lb. .56¾- —
USP, powd., 100-lb. fib. dms., 1,000 lbs. or more..lb. .58¾- —
100-lb. fib. dms., less than 1,000 lbs..lb. .61¾- —
Salol, NF, gran., bbls., kgs .....lb. 1.20 - —
Powdered salol, 25c. per lb. higher.
Salt, rock, paper bgs., c.l. 100 lbs. 1.09 - —
Salt, table vacuum, common, fine, paper bgs., c.l. 100 lbs. 1.34 - —
Saltcake, dom., bulk, works, 100% Na_2SO_4 basis ton.28.00 - —
Saltpeter (see Potassium nitrate).
Sandalwood, E. Indian, chips, bgs., lb. .55 - .66
powd., fib. dms.....lb. .75 - .76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Sandalwood oil, cns. ..... lb. 22.50 - —
Sarcosine, tech., tanks, f.o.b., works, frt. equald lb. 1.03 - —
lb. No stocks.
Sardine oil, crude, tanks, Pac. coast.
Sassafras oil, artif., dms. ..... lb. .45 - —
Nat., dom., dms. ..... lb. 1.40 - —
Savory oil, cns ..... lb. 4.75 - —
Schaeffer's salt, paste, dms., frt. alld. 100% basis lb. .85 - —
Powd., bgs., frt. alld., 100% basis. lb. .95 - —
Scopolamine hydrobromide, USP, bots oz. 13.00 - —
Sebacic acid, CP. bgs., c.l., works. lb. .69½- —
bgs., l.c.l., works ..... lb. .71½- —
Purified, bgs., c.l., works .... lb. .65½- —
bgs., l.c.l., works ..... lb. .67½- —
Seidlitz mixture, fib. dms., 5,000-lb. lots lb. .30½- —
fib dms., smaller lots ..... lb. .31 - .32
Selenium, powd. 99½%, dms., dlvd. lb. 7.00 - —
Senega root, bls ..... lb. 3.00 - —
Senna leaves, Alexandria, whole and half, bls lb. .20 - .22
siftings ..... lb. .16 - —
Tinnevelly, No. 1, bls ..... lb. .22 - —
No. 2, bls ..... lb. .18 - —
No. 3, bls ..... lb. .14 - —
pods, bls. ..... lb. .28 - —
powd bbls. bxs ..... lb. .17 - —
Serpentaria root, bls ..... lb. 6.50 - —
Sesame oil, USP, dms ..... lb. .38 - .39
Sesame seed, Colombian, bgs. ..... lb. .15½- —
Lebanese, hulled, bgs ..... lb. .19 - —
Nicaraguan, hulled, bgs ..... lb. .24 - —
nat., bgs. ..... lb. .14 - —
Salvadorian, Nat., bgs ..... lb. .16 - —

Shellac, bleached bonedry, bgs., 1,500-lb. lots lb. .46 - —
dms., l.c.l., works ..... lb. .22 - .30½
bbls., 1,500-lb. lots ..... lb. .47 - —
kgs., 1,500-lb. lots ..... lb. .48 - —
Bonedry shellacs prices for less than 1,500-lb. lots 1c. per lb. higher for all packages.
Shellac, bleached, refd., bgs., 1,500-lb. lots lb. .56 - —
bbls., 1,500-lb. lots ..... lb. .57 - —
kgs., 1,500-lb. lots ..... lb. .58 - —
Shellac, orange, lemon No. 1, bgs., 10-bg. lots lb. .37 - .39
lemon No. 2, bgs., 10-bg. lots, lb. .34 - .37
superfine, bgs., 10-bg. lots lb. .32 - .34
Shellac in 1 to 10-bg. lots 1c. per lb. more.
Shingle stain oil, tar distillate, dms., c.l., works gal. .37 - —
dms., l.c.l., works ..... gal. .42 - —
tanks, works ..... gal. .25 - —
Sienna pigment, burnt, paper bgs., c.l., works lb. .06½- .18½
paper bgs., l.c.l., works lb. .06¾- .17¾
Raw, paper bgs., c.l., works lb. .06¾- .16¾
paper bgs., l.c.l., works lb. .07 - .17
Silica, amorph., dry-grd., 325 mesh, bgs., c.l., works ton. 25.00 - —
bgs., l.c.l., works, ex whse. ton. 45.00 - 55.00
Silica, hard-quartz, 99½%, 325 mesh, bgs., c.l., works ton. 20.00 - —
bgs., l.c.l., works ..... ton. 25.00 - —
99½%, 140 mesh, bgs., c.l., works ton. 15.00 - —
bgs., l.c.l., works .... ton. 20.00 - —

Silicon tetrachloride, tech., dms., c.l., works lb. .18 - —
tanks, works ..... lb. .17 - —
Silver bullion, ingots, cs. Troy oz. .91⅛- —
Silver cyanide, bots., 1,000-oz. lots, oz. .94¾- —
bots., 500-oz. lots ..... oz. .95¼- —
bots., 100-oz. lots ..... oz. .96¼- —
Silver nitrate, CP. cryst., bots., 1,000 to 4,000 oz., f.o.b. works oz. .67¼- —
bots. 250-500 oz., same basis. oz. 67¾- —
USP granular silver nitrate 4c. per oz. higher.
Silver proteinate, mild, USP, 16-oz. bots. oz. 1.46 - —
Snakeroot oil, Canada, cns ..... lb. 40.00 - 43.00
Soapbark, crushed, bls ..... lb. .30 - .35
Powd., bls. ..... lb. .35 - .40
Whole, bls. ..... lb. .20 - .25
Soda ash, dense, 58%, paper bgs., c.l., works 100 lbs. 1.90 - —
paper bgs., l.c.l., stock pts., 100 lbs. 3.00 - 4.77
bulk, c.l., works ..... 100 lbs. 1.60 - —
Light, 58%, paper bgs., c.l., works 100 lbs. 1.85 - —
paper bgs., l.c.l., stock pts. 100 lbs. 3.95 - 4.72
bulk, c.l., works ..... 100 lbs. 1.55 - —
Soda, caustic, flake, 76%, dms., c.l., works, frt. equald 100 lbs. 5.20 - —
liq., 50%, sellers' tanks, works, dry basis 100 lbs. 2.90 - —
50%, rayon type, sellers' tanks, works, dry basis 100 lbs. 2.90 - 3.00
Soda, caustic, liq., 73%, sellers' tanks, works, dry basis, 100 lbs. 3.00 - —
liq., 73%, rayon type, sellers' tanks, works, dry basis lb. 3.00 - 3.10
solid, 76%, dms., c.l., works, 100 lbs. 4.80 - —

Soda, sal. cone., bgs., c.l., works. 100 lbs. 2.50 - —
bgs., smaller lots, works ..... 100 lbs. 2.80 - —
Sodium acetate, anhyd., bgs., c.l., dlvd. E lb. .14½- —
NF, 60%, gran., dms., c.l., works. lb. .15½- —
dms., l.c.l., works ..... lb. .17½- —
Sodium alginate, NF, white powd., dom., 300 lbs. or more lb. 1.02 - —
Sodium p-aminosalicylate, dms., 100-lb. lots or more, frt. adjusted lb. 1.90 - —
Sodium antimoniate, bgs., c.l., dlvd. E lb. .27½- —
bgs., l.c.l., dlvd. E ..... lb. .29 - —
Sodium arsenate, 60% arsenic pentoxide, 200 lb. dm., less than ton lots, f.o.b. works lb. .24 - —
ton lots or more, same basis. lb. .23½- —
Sodium arsenite, 90% pink powder, 75% arsenious oxide, leaders, dms., ton lots or more, works lb. .17½- —
dms., less than ton lots, works lb. .18 - .19
Sodium ascorbate, dms., 25-50 kilo dms., f.o.b. works kilo. 10.00 - —
10-kilo dm., same basis ..... kilo. 10.35 - —
5-kilo dm., same basis ..... kilo. 10.75 - —
1-kilo bot., same basis ..... kilo. 11.00 - —
Sodium benzoate, tech., dms., c.l., t.l., frt. alld lb. .35 - —
dms., l.c.l., same basis ..... lb. .39 - —
USP, dms., c.l., t.l., frt. alld lb. .38 - —
dms., ton lots, same basis ..... lb. .43 - —
dms., 1,000-lb. lots, same basis. lb. .45 - —
Sodium bicarbonate, USP, gran., bgs., c.l., works 100 lbs. 2.95 - —
bgs., l.c.l., works ..... 100 lbs. 3.85 - —
USP, powd., bgs., c.l., works. 100 lbs. 2.55 - —
bgs., l.c.l., works ..... 100 lbs. 3.45 - —
Sodium bichromate, gran., ogs., c.l., t.l., works lb. .13 - —
bgs., l.c.l., works ..... lb. .13½- .14¾
Sodium bichromate in dms. ¾c. per lb. higher
Sodium bifluoride, bbls., c.l., works, frt. equald lb. .19½- —
bbls., l.c.l., same basis ..... lb. .2025- —
Sodium bisulfate, bulk, c.l., works. 100 lbs. 2.00 - —
dms., c.l., frt. equald ..... 100 lbs. 3.00 - 3.60
dms., l.c.l., frt. equald ..... 100 lbs. 3.50 - 4.10
Sodium bisulfite, anhyd., bgs., c.l., works 100 lbs. 5.00 - —
bgs., l.c.l., works ..... 100 lbs. 5.45 - —
Soln., 35°, bbls., c.l., works. 100 lbs. 1.70 - —
bbls., l.c.l., works ..... 100 lbs. 2.20 - —
Sodium borate (see Borax).
Sodium borohydride, powd., dms., c.l., works lb. 19.90 - —
dms., l.c.l., works ..... lb. 33.00 - 40.00
Sodium borohydride, stabilized water soln., 12% NaBH, 100% basis, dms., works lb. 15.00 - —
Pelletized sodium borohydride $1 per lb. higher in 1,000-lb. lots.
Sodium bromide, USP, gran., dms., works lb. .40 - —
Sodium carbonate, cryst., monohydrated (see Soda, sal).
Sodium carbonate, monohydrated, bgs., c.l., works 100 lbs. 3.10 - —
bgs., l.c.l., works ..... 100 lbs. 3.50 - —
Sodium carboxymethyl cellulose (see CMC).
Sodium chlorate, cryst., 350-lb. dms., c.l., works lb. .09 - —
dms., l.c.l., works ..... lb. .09½- .10¼
Sodium chlorate in 100-lb. dms., only, ¼c. per lb. higher.
Sodium chloride, tech. (see Salt).
Sodium chloride, USP, gran., bgs. lb. .05 - —
Sodium chlorite, tech., dms., c.l., works lb. .58 - —
dms., 20-dm. lots or more, works. lb. .66 - —
dms., smaller lots, works .. lb. .70 - .73
Sodium chloroacetate, tech., dms., c.l., works lb. .27 - —
dms., l.c.l., works ..... lb. .28 - —
Sodium chromate, anhyd., fib. dms., c.l., t.l., works lb. .14¾- —
fib. dms., l.c.l., works ..... lb. .15¼- .16¼
Sodium chromate tetrahydrate, bgs., c.l., t.l., works lb. .1015- —
bgs., l.c.l. ..... lb. .1065- .1190
Sodium citrate, anhyd., 200-lb. dm., f.o.b. works E lb. .62 - —
NF VIII, gran, bgs., c.l., same basis lb. .26 - —
USP XIV, gran., bgs., c.l., same basis lb. .29 - —
Sodium citrate, USP, powd. prices ½c. higher.
Sodium cyanate, dms., 1,000-lb. lots, works lb. .85 - —
dms., smaller lots, works ..... lb. .90 - 1.10
Sodium cyanide, briquettes or gran., 97 percent min., dms., works, 20,000-lb. lots lb. .176 - —
dms., same basis, 5,000 to 19,999-lb. lots lb. .188 - —
dms., same basis, 1,000 to 4,900-lb. lots lb. .198 - —
Sodium cyclamate, 100-lb. dm., f.o.b. works lb. 1.95 - —
Sodium diacetate, anhyd., 39-41% acetic acid, dms., c.l., works lb. .18 - —
250-lb. dms., l.c.l., works .... lb. .18¾- —
Tech., 33-35% acetic acid, dms., l.c.l., works lb. .15 - —
250-lb. dms., l.c.l., works .... lb. .15¾- —
Sodium dimethyl dithiocarbamate, 40% soln., dms., c.l., t.l., frt. alld., 100% basis lb. .42 - —
dms., l.c.l., t.t.l., same basis lb. .47 - .52
tanks, same basis ..... lb. .38 - —
Sodium ferrocyanide, bgs., 10-ton lots lb. .13½- —
bgs., smaller lots ..... lb. .14¼- —
Sodium fluoride, white, 97%, fib. dms., c.l., works, frt. equald lb. .1390- —
fib. dms., l.c.l., works, frt. equald lb. .1465- —
Sodium formate, bgs., c.l., works. 100 lbs. 7.05 - —
bgs., l.c.l., ex whse ..... 100 lbs. 8.65 - —
Sodium gentisate, 100-lb. fib. dms. lb. 5.50 - —
Sodium gluconate, refd., 250-lb. dm., f.o.b. works E lb. .84 - —
Tech., bgs., c.l., t.l., same basis lb. .34 - —
Sodium hydride, 50% soln. in oil, dms., works lb. 1.25 - 2.50
25% soln. in oil, dms., 50 lbs. or less, f.o.b. shipping point. lb. 2.20 - —
dms., 50-99 lbs., same basis lb. 1.77 - —
dms., 100-999 lbs., same basis lb. 1.20 - —
dms., 1,000 lbs. or more, same basis lb. .95 —
Sodium hydrosulfide (see Sodium sulfhydrate).

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Sodium hydrosulfite, dms, c.l., frt. alld. lb. .23½- —
dms., l.c.l., frt. alld. lb. .35¾- —
Sodium hydroxide, NF, pellets, 100-lb. dms., 1 to 100-dm. lots, lb. .23½- .38
Sodium hydroxide, tech. (see Soda, caustic).
Sodium hypophosphite, NF, dms., 1,000-lb. lots lb. .99 • —
Sodium hyposulfite (see Sodium thiosulfate).
Sodium iodide, USP, 300-lb. dms., f.o.b. works lb. 1.96 • —
Sodium lauryl sulfate, dms., c.l., dlvd lb. .20½- —
dms., l.t.l., dlvd. lb. .21½- —
tanks, dlvd. lb. .19½- —
Sodium lignin sulfonate, bgs., c.l., works 100 lbs. 4.25 - 6.50
l.c.l., bgs., works 100 lbs. 4.40 - 7.00
Sodium metabisulfite (see Sodium bisulfite).
Sodium metaborate octahydrate, gran., bgs., c.l., works ton.210.00 • —
bgs., ton lots, ex whse 100 lbs. 8.00 • —
bgs., smaller lots, ex whse. 100 lbs. 9.23 -11.25
Tetrahydrate, bgs., c.l., works. ton.210.00 • —
bgs., ton lots, ex whse 100 lbs.13.93 • —
bgs., smaller lots, ex whse. 100 lbs.15.18 -17.18
Sodium, metallic, bricks, c.l., works. lb. .21 • —
Fused, 18,000-lb. lots or more, works lb. .19½- —
tanks, works lb. .17 • —
Sodium metalinate, bbls., frt. alld. lb. .62 • —
Sodium metaphosphate, bgs., c.l., f.o.b. shipping pt 100 lbs.11.10 • —
bgs., l.c.l., same basis 100 lbs.11.85 • —
dms., c.l., same basis 100 lbs.11.70 • —
dms., l.c.l., same basis 100 lbs.12.45 • —
Sodium metasilicate, anhyd., bgs., c.l., works 100 lbs. 5.70 • —
bgs., 6,000-19,900 lb. lots, works. 100 lbs. 6.05 • —
dms., c.l., works 100 lbs. 6.20 • —
dms., l.c.l., works 100 lbs. 6.55 • —
Sodium metasilicate pentahydrate, bgs., c.l., works 100 lbs. 4.45 • —
bgs., l.c.l., works 100 lbs. 4.80 • 6.75
dms., l.c.l., works 100 lbs. 4.95 • —
dms., l.c.l., works 100 lbs. 5.30 • 7.25
Sodium molybdate, anhyd., dms., works, frt. equald lb. .92 • .99
Cryst., dms., works, frt. alld. lb. .74 • .76
Sodium monoglutamate (see Monosodium glutamate).
Sodium monohydrate (see Sodium carbonate, monohydrated).
Sodium naphthionate, bbls. lb. .72 • —
Sodium nitrate, dom., crude, bgs., c.l., works ton.48.00 • —
bulk, c.l., works ton.44.00 • —
Imp., crude, 100-lb. bgs., c.l., Atl., Gulf, Pac., whse. ton.48.00 • —
bulk, c.l., same basis ton.44.00 • —
Sodium nitrite, USP, bbls., c.l., works, frt. equald 100 lbs. 9.00 • —
bbls., l.c.l., same basis 100 lbs.11.00 • —
Sodium orthosilicate, conc., dms., c.l., works 100 lbs. 6.70 • —
dms., l.c.l., works 100 lbs. 7.05 • 7.65
Hydrated, flake, bbls., c.l., works. 100 lbs. 5.65 • —
bbls., l.c.l., works 100 lbs. 7.60 • 7.90
Sodium oxalate, 88%, bgs., works. 100 lbs.12.35 • —
99%, bgs., works 100 lbs.15.40 • —
Sodium para-aminobenzoate (see Sodium p-aminobenzoate).
Sodium para-aminosalicylate (see Sodium p-aminosalicylate).
Sodium pentachlorophenate, briquets, dms., c.l., works, frt. equald lb. .26 • —
dms., l.c.l., same basis lb. .27½- .34
Pellets, dms., c.l., same basis lb. .26 • —
dms., c.l., same basis lb. .27½- .34
Powd., dms., c.l., same basis lb. .25 • —
dms., l.c.l., same basis lb. .26½- .33
Sodium pentabarbital, USP, dms., 100 lbs. or more lb. 6.00 • —
Sodium perborate, NF, tech., bgs., c.l., works lb. .18½- —
bgs., l.c.l., works lb. .19 • .21
Sodium peroxide, dms., c.l., t.l., dlvd. E. of Miss. lb. .21½- —
dms., l.c.l., same basis lb. .22 • .22½
Sodium phenobarbital, USP, 100-lb. dms lb. 3.75 • —
Sodium phenosulfonate, USP, IX, gran., dms. lb. .52 • .53
NF, powd., dms. lb. .53 • .56
Sodium phosphate, dibasic, anhyd., bgs., c.l., frt. equald 100 lbs. 7.95 • —
bgs., l.c.l., same basis 100 lbs. 8.35 • 9.40
Dibasic, cryst., bgs., c.l., t.l., frt. equald 100 lbs. 4.60 • —
bgs., l.c.l., frt. equald 100 lbs. 5.00 • 5.75
Dibasic, duohydrate, bgs., c.l., frt. equald 100 lbs. 7.60 • —
bgs., l.c.l., same basis 100 lbs. 8.10 • —
Sodium phosphate, USP, dried, powd., bgs., dms., works lb. .19 • .20½
Monobasic, anhyd., bgs., c.l., frt. equald 100 lbs. 9.00 • —
bgs., l.c.l., same basis 100 lbs. 9.40 -10.00
Tribasic, anhyd., bgs., c.l., frt. equald 100 lbs. 9.00 • —
bgs., l.c.l., frt. equald 100 lbs. 9.45 -10.05
Sodium phosphate in dms. 60c. to 80c. higher than bgs.
Sodium picramate, tech., paste, dms., f.o.b. works, frt. equald lb. .90 • —
Sodium propionate, any quantity, dms., dlvd. E. of Rockies. lb. .34½- —
Prices W. of Rockies 3c. per lb. more.
Sodium prussiate, yellow (see Sodium ferrocyanide).
Sodium pyrophosphate acid, bgs., c.l., works, frt. equald. 100 lbs.11.10 • —
bgs., l.c.l., same basis 100 lbs.11.85 12.35
Sodium pyrophosphate, ferric, dms., c.l., t.l., works lb. .36 • —
dms., l.c.l., works lb. .37 • .39
Tetrabasic, anhyd., bgs., c.l., works, frt. equald 100 lbs. 7.81 • —
bgs., l.c.l. same basis 100 lbs. 9.21 • 9.71
Sodium salicylate, USP, dms., 1,000-lbs. or more lb. .78½- —
dms., less than 1,000 lbs., dms. lb. .81½- —
Sodium sesquicarbonate, bgs., c.l., works 100 lbs. 2.35 • —

Sodium sesquicarbonate, bgs., l.c.l., dlvd. zone 1 100 lbs. 4.10 - 4.35
dlvd. zone 2 100 lbs. 4.35 - 4.60
dlvd. zone 3 100 lbs. 4.75 - 4.90
dlvd. zone 4 100 lbs. 5.35 - 5.60

Sales zones are (1) Atl. states E. of Miss., R and N of south bound of Ky. and Va., Ala., La., and Miss., south of 31°; Tex. E. of 100°; S. of 31° Fla.; also Me., N. H. and Vt. in which there are special county zones; Davenport, Ia., and St. Louis; (2) Ark. E. of 98° Ga.; Iowa (except Davenport) Minn., Mo. (except St. Louis) Neb. E. of 98° N. C., S. C., Tenn. and Tex. N. of 31° and E. of 100° (except Wichita Falls); also Ala., La. and Miss. No. of 31°; (3) Ark. W. of 96°, Kan., Neb. W. of 98° N. D., Okla., S. D., Tex., W. of 100° (including Wichita Falls, excluding El Paso); (4) Ariz., Colo., Idaho, Mont., Nev., N. M., Utah, Wyo. and El Paso, Tex.

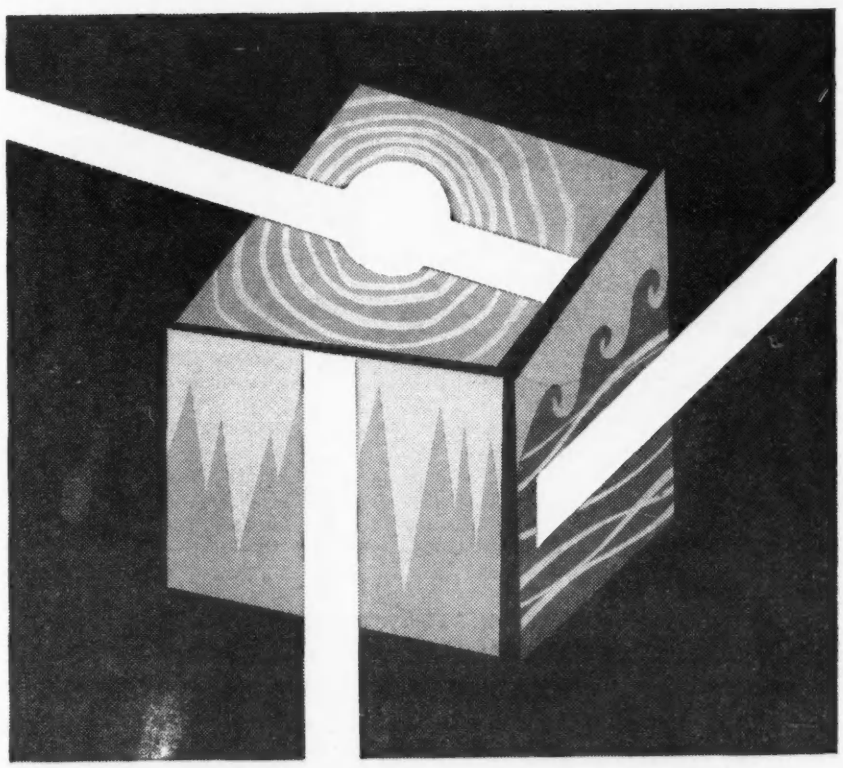
Sodium sesquisilicate, anhyd., bgs., c.l., t.l., works 100 lbs. 5.70 • —
dms., c.l., t.l., works 100 lbs. 6.20 • —
Sodium sesquisilicate, hydrated, bgs., c.l., works 100 lbs. 5.00 • —
bgs., 6,000-19,900 lb. lots, works 100 lbs. 5.35 • —
dms., c.l., works 100 lbs. 5.50 • —
dms., 6,000-19,900 lb. lots, works. 100 lbs. 5.85 • —
Sodium silicate, liq., 40° Be., 1:3.2, turbid, dms., c.l., works. 100 lbs. 1.65 • —
dms., l.c.l., works 100 lbs. 1.90 • 2.40
tanks, works 100 lbs. 1.20 • —
47° Be., 1:29.9, turbid, dms., c.l., works 100 lbs. 2.25 • —
dms., l.c.l., works 100 lbs. 2.60 - 3.45
tanks, works 100 lbs. 1.90 • —
52° Be, 1:2.4, turbid, dms., c.l., works 100 lbs. 2.65 • —
dms., l.c.l., works 100 lbs. 3.00 - 3.50
tanks, works 100 lbs. 2.30 • —
Solid, 1.3.2, bgs., works ton.67.50 • —

Sodium silicofluoride, bgs., c.l., works lb. .065 • —
bgs., l.c.l., works lb. .725- —
Sodium silicofluoride in dms., 0.4c. per lb. higher.
Sodium stannate, dms., works, frt. alld. E lb. .642 - .702
Sodium sulfa drugs (see Sulfa name).
Sodium sulfanilate, bbls., works lb. .22 • —
Sodium sulfate, NF VII, dried, powd., dms lb. .22½- —
Tech., anhyd., bgs., c.l., dlvd. E. ton.54.00 • —
Tech., detergent, rayon grade, bgs., c.l., works ton.36.00 • —
bulk, c.l., works ton.32.00 • —
USP, cryst., fib. dms. lb. .17½- .18
Sodium sulfhydrate, flake, 70-72%, dms., c.l., works, frt. equald lb. .07¼- —
dms., l.c.l., same basis lb. .08¼- —
Liq., 40-44%, tanks, works, 100% basis ton.130.00 • —
Sodium sulfide, flake, dms., c.l., works, E., frt. equald lb. .06 • —
dms., l.c.l., same basis lb. .07 • —
Fused, bbls., c.l., works, E., frt. equald lb. .05½- —
bbls., l.c.l., same basis lb. .06½- —
Sodium sulfite, anhyd., powd., bgs., c.l., works 100 lbs. 7.55 • —
bgs., l.c.l., same basis 100 lbs. 7.95 • —
Anhyd., tech., bgs., c.l., works. 100 lbs. 3.50 • —
bgs., t.l., same basis 100 lbs. 4.00 • —
Sodium sulfocyanide, CP (see Sodium thiocyanate).
Sodium tetraborate (see Borax).

Sodium tetrasulfide, liq., 40%, dms., c.l., works, frt. equald lb. .04½- —
dms., l.c.l., same basis lb. .05½- —
Sodium thiocyanate, CP, dms. lb. .55 • .85
Tech., anhyd., dms., 1 ton lots or more, works lb. .317 • —
dms., less than ton lots, works lb. .337 • —
Sodium thiosulfate, NF, cryst., bbls. lb. .13½- —
Tech., anhyd., 100-lb. bgs., c.l., t.l., frt. equald 100 lbs. 7.75 • —
100-lb. bgs., l.c.l., l.t.l., frt. equald 100 lbs. 8.15 • —
Sodium thiosulfate, tech., anhyd., photo grade, 64-lb. bgs., c.l., t.l., frt. equald lb. .0775- —
64-lb. bgs., l.c.l., l.t.l., frt. equald lb. .0815- —
Tech., pentahydrate, photo grade, 100-lb. bgs., c.l., t.l., frt. equald 100 lbs. 4.95 • —
Sodium thiosulfate, tech., pentahydrate, photo grade, 100-lb. bgs., l.c.l., l.t.l., frt. equald 100 lbs. 5.20 • —
Sodium titanate, ctns., c.l., works. lb. .14¼- —
ctns., 5-ton lots, works lb. .14½- —
ctns., 1-ton lots or less, works lb. .14¾- —
Sodium trichloroacetate, 90%, 100-lb. dms., c.l., frt. alld. E. lb. .35 • —
50-lb. dms., c.l., frt. alld. E lb. .35½- —
10-lb. cns., c.l., frt. alld. E lb. .42 • —
Prices on Sodium trichloroacetate W. of the Rockies are 1¼c. per pound higher.

SILICONE NEWS from Dow Corning

Sticks Here...Here...Here



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The exceptional durability of Dow Corning pressure sensitive silicone adhesives makes them dependable for tapes, sealants, spray-on coatings, bonding materials and splicing agents. Perhaps there's a special property you need in an adhesive . . . or a special *combination* of properties? Here, briefly, are the properties of Dow Corning silicone adhesives. Silicones may offer exactly what you need.

They stick anywhere! At temperatures ranging from —80 to 500 F, pressure sensitive silicone adhesives stay stuck and don't deteriorate. They withstand the effects of moisture, oxidation, corrosive chemicals, weathering, arcing, corona and fungus. For electrical applications, silicone adhesives provide excellent dielectric strength.

As tapes. Dow Corning silicone adhesives are used with most backing materials. Now readily available from several manufacturers are tapes with backings of glass cloth, Teflon, Mylar, aluminum foil, silicone rubber and combinations of these materials. Typical applications include: high temperature electrical insulation; bonding, splicing, and sealing; masking in chemical milling; release surfacing, and electroplating.

Or alone. For a fastening adhesive in rugged service, silicones may be your answer. For example, silicone adhesives in combination with asbestos fibers are used to coat and insulate hot air ducts in aircraft. Other tough applications: sealing ends of heat elements in appliances, bonding mica and asbestos panelboard, and bonding silicone rubber to the coils of electrical equipment.

Dow Corning Silicones may well be your adhesive of the future. For more technical information or assistance, write Dept. 6309a.

Available now — list of manufacturers supplying pressure sensitive tapes with silicone adhesives.

first in silicones

Dow Corning CORPORATION
MIDLAND, MICHIGAN

ATLANTA BOSTON CHICAGO CLEVELAND DALLAS LOS ANGELES NEW YORK WASHINGTON, D. C.

Sodium tripolyphosphate, bgs., c.l., works, frt. equald 100 lbs. 8.16 - —
bgs., l.c.l., same basis ....100 lbs. 8.56 - 9.06
Sodium trisilicate, powd., 1:3.2, bgs., c.l., works....100 lbs. 8.95 - —
bgs., l.c.l., works.....100 lbs. 9.70 -13.13
dms., c.l., works.....100 lbs. 9.45 - —
dms., l.c.l., works.....100 lbs.10.20 -10.60
Sodium tungstate, tech., kgs., dlvd. E lb. 1.32 - —
Sodium-ammonium phosphate, purif., cryst., dms., works lb. .52 - —
Sodium-carboxymethyl cellulose (see CMC).
Sodium-cinchophen (see Cinchophen-sodium).
Sodium - formaldehyde sulfoxylate, dms., c.l., dlvd lb. .21 - —
dms., l.c.l., same basis ..... lb. .21½- —
Sodium-zirconyl sulfate, fib. dms., 1,000-lb. lots or more works lb. .28 - —
fib. dms., smaller lots, same basis lb. .30 - —
Solvent naphtha, coaltar, high-flash, tanks, frt. equald gal. .30 - .35½
Solvent naphtha, petroleum, straight aromatic, 310°-360°F. b.r., 14°-16°C. m.a.p., tankcars, New Jersey and New York gal. .29 - —
Houston, Texas ..... gal. .29 - —
355°-420°F. b.r., 17°-18°C. m.a.p., tankcars, New Jersey and New York. gal. .30 - —
Houston, Texas ..... gal. .30 - —
Solvent naphtha, petroleum, partial aromatic, 211°-265°F. b.r., 31°C. m.a.p., tankcars, New Jersey and New York gal. .235 - —
286°-340°F. b.r., 22°C. m.a.p., tankcars, New Jersey and New York gal. .275 - —
319°-380°F. b.r., 27°C. m.a.p., tankcars, New Jersey and New York gal. .27 - —
322°-395°F. b.r., 28°C. m.a.p., tankcars, New Jersey and New York gal. .28 - —
Sorbitan monostearate, fib. dms., 20,000-lb. lots, works lb. .33½- —
fib. dms., 10,000 to 20,000-lb. lots, works lb. .35½- —
fib. dms., smaller lots, works lb. .38½- .40½
Sorbitan tristearate, fib. dms., 20,000-lb. lots, works lb. .34 - —
fib. dms., 10,000 to 20,000-lb. lots, works lb. .36 - —
fib. dms., smaller lots, works lb. .39 - .41
Sorbitol, NF, reg., 70% aqueous, dms., c.l., works lb. .18 - —
dms., l.c.l., works..... lb. .19 - —
tanks, works ..... lb. .16¼- —
cryst., resin grade, pellets, dms., c.l., works lb. .23 - —
dms., 1 to 5-ton lots, works. lb .25 .26
powd., dms., c.l., works..... lb. .38½- —
dms., 10,000 to 20,000 lb. lots, works lb. .40½- —
Sorbitol, soln., comyl., aqueous, dms., c.l., works lb. .26 - —
dms., l.c.l., works..... lb. .27 - —
Soya protein, chemically isolated, old process, bgs., c.l., works. lb. .23 - —
bgs., l.c.l., works ..... lb. .23¼- .23½
Chemically isolated, new process, bgs., c.l., works lb. .20 - —
bgs., l.c.l., works ..... lb. .20¼- .29½
Soybean meal, 44%, bulk, unrestricted, Decatur ..ton.52.00 - —
Soybean oil, crude, tanks, Decatur. lb. .09¼- —
Foots, soapstock, acid 95%, tanks, lb. .08⅞- —
Refd., alkali, dms. ..... lb. .1313- .1340
tanks ..... lb. .1113- —
Clarified, dms. ..... lb. .1263- .1290
tanks ..... lb. .1063- —
Salad, dms. ..... lb. .1290- .1325
tanks ..... lb. .1090- —
Soybean oil acids, dbl. dist., dms., lb. .17 - .19½
tanks ..... lb. .14½- —
S. D., dms. ..... lb. .15¾- .18¼
tanks ..... lb. .13¼- —
Sparteine sulfate, cns., 100 oz. or more oz. .80 - —
Spearmint leaves, dom., bls ..... lb. .75 - —
Spearmint oil, NF, dms. ..... lb. 4.00 - 4.70
Sperm oil, bleached, winter, 45°, dms lb. .1575- .1675
tanks ..... lb. .1375- —
Nat., winter, 45°, dms..... lb. .1475- .1575
tanks ..... lb. .1275- —
Spermaceti wax, blocks, cs..... lb. .31 - .33
Cakes, cs. ..... lb. .32 - .34
Spruce oil, cns., dms. ..... lb. 2.10 - 3.55
Squill, white, bls. ..... lb. .16 - .18
Powd., bbls., bxs. ..... lb. .17 - .20
St. John's bread, edible, bls. .... lb. .17 - —
Stannic chloride, anhyd., dms., works lb. .812 - .834
Stannic oxide, dms., dlvd. ..... lb. 1.10 - 1.11
Stannous chloride, annyd. dms., works lb. 1.007 - 1.262
Hydrous, cryst., dms., works lb. .87 - .88
Stannous sulfate, dms., works.... lb. 1.062 - 1.162
Star root (see Helonias root).
Stargrass root (see Aletris root.)
Stavesacre seed, bgs. ..... lb. .60 - .61
Stearic acid, dbl., pressed bgs. lb. .15¾- .18¼
Single-pressed, bgs., ... lb. .15¼- .17¾
Triple-pressed, bgs. ..... lb. .17½- .20
Stearine, oleo (see Oleostearine.)
Stoddard solvent, petroleum, tanks, east coast, New Jersey, New York gal. .18 - —
tanks, Houston ..... gal. .1475- —
tanks, group 3..... gal. .12875- —
Stramonium leaves, bgs. ..... lb. .13 - —
Streptomycin sulfate, bulk, gram. .035 - .036
Strontium bromide, NF, cryst., 100-lb. dm., f.o.b. E lb. .92 - —
Strontium carbonate, pure, dms., 5-ton lots or more, works. lb. .35 - —
dms., 1-ton lots, works..... lb. .37 - —
Tech., dms., works ..... lb. .19 - —
Strontium chromate, fib. dms., dlvd. lb. .48 - —
Strontium iodide, jars, 25-lb lots lb. 3.57 - —
Strontium nitrate, bgs., c.l., works. 100 lbs.11.00 - —
bgs., l.c.l., works ..... 100 lbs.12.00 - —
Strontium salicylate, NF, dms lb. 1.88 - —
Strontium sulfate, air floated, 90%, 325 mesh, bgs., works. ton.56.70 -66.15
Strophanthin G (see Quabain, USP).
Strophanthin K, bots. ..... oz.25.00 -25.50
Strophanthus seed, Kombi, biologically tested, bgs lb. 3.50 - 3.75
Styrax gum, USP, cs. ..... lb. 4.50 - 5.50
Styrene monomer, polymer grade, 99.6%, dms., c.l., frt. alld. lb. .17 - —
dms., l.c.l., same basis ..... lb. .19 - —
tanks, same basis ..... lb. .14½- —
Styrene monomer, tech., 99.2%, dms., c.l lb. .1501- —
dms., l.c.l., same basis..... lb. .1701- —
tanks, bulk, same basis..... lb. .1251- —

Above prices are escalated for each calendar quarter on the basis of cost of benzene and petroleum refining labor.

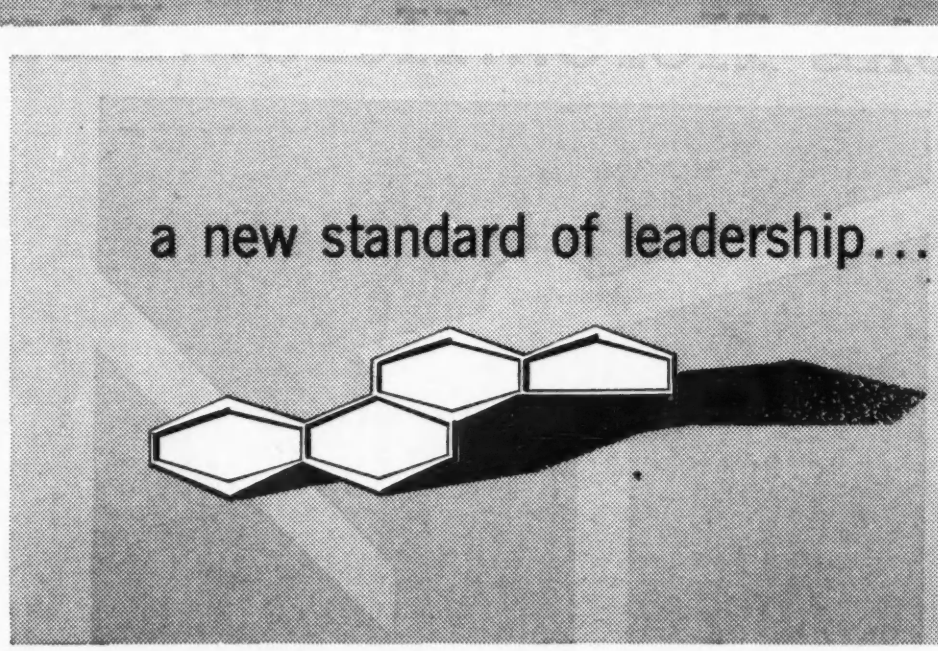
Styrolyl acetate, bots. ..... lb. 1.10 - —
Succinic acid, purif., cryst., dms., t.l., frt. alld lb. .62 - —
dms., l.t.l., same basis ..... lb. .63 - .75
Succinic anhydride, dms., c.l., t.l., dlvd lb. .51 - —
dms., l.c.l., same basis ..... lb. .52 - —
Sucrose, refd., white, bgs., refy E. lb. .0970- —
Sucrose acetate, isobutyrate, 90%, dms., t.l., dlvd lb. .33½- —
dms., l.t.l., same basis..... lb. .35 - —
tanks, same basis ..... lb. .31 - —
100%, t.l., dms., dlvd. ..... lb. .35½- —
l.t.l., dms., same basis ..... lb. .37 - —
Sucrose octa-acetate, denaturing grade, 100-200-lb. lots, bgs., l.c.l., works lb. 1.00 - —
Sugar (see Sucrose).
Sugar cane, wax, dom., refd., slabs, 80-lb. ctns., works lb. .60 - .65
80-lb. ctns., spot..... lb. .65 - .75
Sulfabenzamide, dms. ..... kilo. 8.80 - 9.90
Sulfabenzamide-sodium, dms. .. kilo. 9.00 -10.10
Sulfacetamide, USP, fib. dms kilo. 6.61 - 6.83
Sulfacetamide-sodium, USP, fib. dms kilo. 8.15 - 9.25
Sulfadiazine, USP, microcrystals, dms kilo.23.35 -24.45
USP, powd., dms. ..... kilo.22.60 -23.70
Sulfadiazine-sodium, USP, dms kilo.24.80 -25.90
Sulfaguanidine, NF X, dms .. kilo. 5.50 - 6.60
Sulfamerazine-sodium, USP, powd., dms kilo.24.80 25.90
Sulfamethazine, USP XV, microcrystals, dms kilo.19.65 -20.75
USP XV, powd., dms. ..... kilo.18.75 -19.85
Sulfamic acid, cryst., dms., c.l., t.l., works 100 lbs.16.00 - —
dms., l.c.l., l.t.l., works 100 lbs.17.50 18.50
Gran., dms., c.l., t.l., works. 100 lbs.14.75 - —
dms., l.c.l., l.t.l., works 100 lbs.16.25 -17.25
Sulfanilamide, NF, reg., 1.000 lb., frt. equald lb. 1.50 - —
NF, fib. dm., frt. equald ..... lb. 1.55 - —
Sulfanilamide quinoxaline, veterinary, dms kilo.16.28 - —
Sulfanilic acid, tech., dms., c.l., frt. alld lb. .21 - —
dms., l.c.l., frt. alld ..... lb. .23 - —
Sulfapyridine, USP XV, powd., bots., tins kilo.15.45 -16.55
Sulfapyridine-sodium, monohydrate, dms kilo.16.55 -17.65
Sulfathiazole, NF X, microcrystals, dms. kilo. 6.25 - 6.90
NF X, powd., dms. ..... kilo. 5.50 - 6.15
Sulfathiazole-sodium, NF X, dms., 1,000-lb. lots or more lb. 2.35 - —
Sulfur, coml., flour, bgs., mines. 100 lbs. 2.35 - —
bbls., mines ..... 100 lbs. 3.30 - —
lump, bgs., mines ..... 100 lbs. 2.25 - —
bbls., mines ..... 100 lbs. 2.80 - —
Sulfur, crude, dom., bright, bulk, f.o.b. cars, mines long-ton.23.50 - —
export, f.o.b. vessels, Gulf ports. long-ton.25.00 - —
US and Canada, f.o.b. vessels Gulf ports. long-ton.25.00 - —

Domestic dark sulfur prices are $1 per long-ton lower.

Sulfur, crude, imp., Mexican, bulk, filtered, f.o.b., vessel, Coatzacoalcos long-ton.24.00 - —

Mexican dark sulfur price is $1 per long-ton lower.

Sulfur, refd., flowers, NF, bgs., mines. 100 lbs. 5.65 - —
bbls., mines ..... 100 lbs. 7.00 - —
flour, light, bgs., mines 100 lbs. 5.25 - —
bbls., mines ..... 100 lbs. 6.25 - —
lump, bgs., mines ..... 100 lbs. 4.95 - —
rolls, bgs., mines ..... 100 lbs. 5.50 - —
bbls., mines ..... 100 lbs. 6.25 - —
salt block, bgs., mines. 100 lbs. 4.65 - —
virgin block, bbls., mines 100 lbs. 4.70 - —
Sulfur, rubbermakers, coml., reg., bgs., mines. 100 lbs. 2.45 - —
bbls., mines ..... 100 lbs. 3.70 - —
98-100%, passing through 325 mesh, bgs., mines. 100 lbs. 2.55 - —
bbls., mines ..... 100 lbs. 3.80 - —
refd., bgs., mines ..... 100 lbs. 4.90 - —
bbls., mines ..... 100 lbs. 6.05 - —
treated, 2.5% mineral oil, bgs., mines. 100 lbs. 2.75 - —
bbls., mines ..... 100 lbs. 4.00 - —
Sulfur dichloride, ret. dms., c.l., works, frt. equald lb. .05¼- —
ret. dms., l.c.l., same basis.... lb. .06¼- —
tanks, same basis ..... lb. .04½- —
Sulfur dioxide, liq., coml., cyls., works, frt. equald lb. .10 - .12
multi-unit cars, works... lb. .0535- —
tanks, works ..... lb. .045 - —
Sulfur dioxide, refrigeration, cyls., dlvd lb. .23 - —
Sulfur monochloride, 55-gal. non-ret. dms., c.l., frt. equald lb. .05¼- —
dms., l.c.l., same basis ..... lb. .06¼- —
tanks, same basis ..... lb. .04½- —



a new standard of leadership...

HARDLY MORE THAN A DECADE AGO, Syntex made its first major contribution in the field of steroid hormones through the development of important new sources of supply — a development which has not only helped to satisfy today's large demand for these hormones, but has been a vital factor in reducing the cost of hormone intermediates.

Today Syntex continues to serve as an important supplier of hormones and intermediates to the pharmaceutical industry. By continued research and constant improvement of production techniques, Syntex has helped to raise the standards of quality and dependability in this significant field of medicine.

one great source of
steroid hormones and intermediates

SYNTEX

Write to: SYNTEX CHEMICAL COMPANY, INC.
10 East 40th Street, New York 16, N. Y.

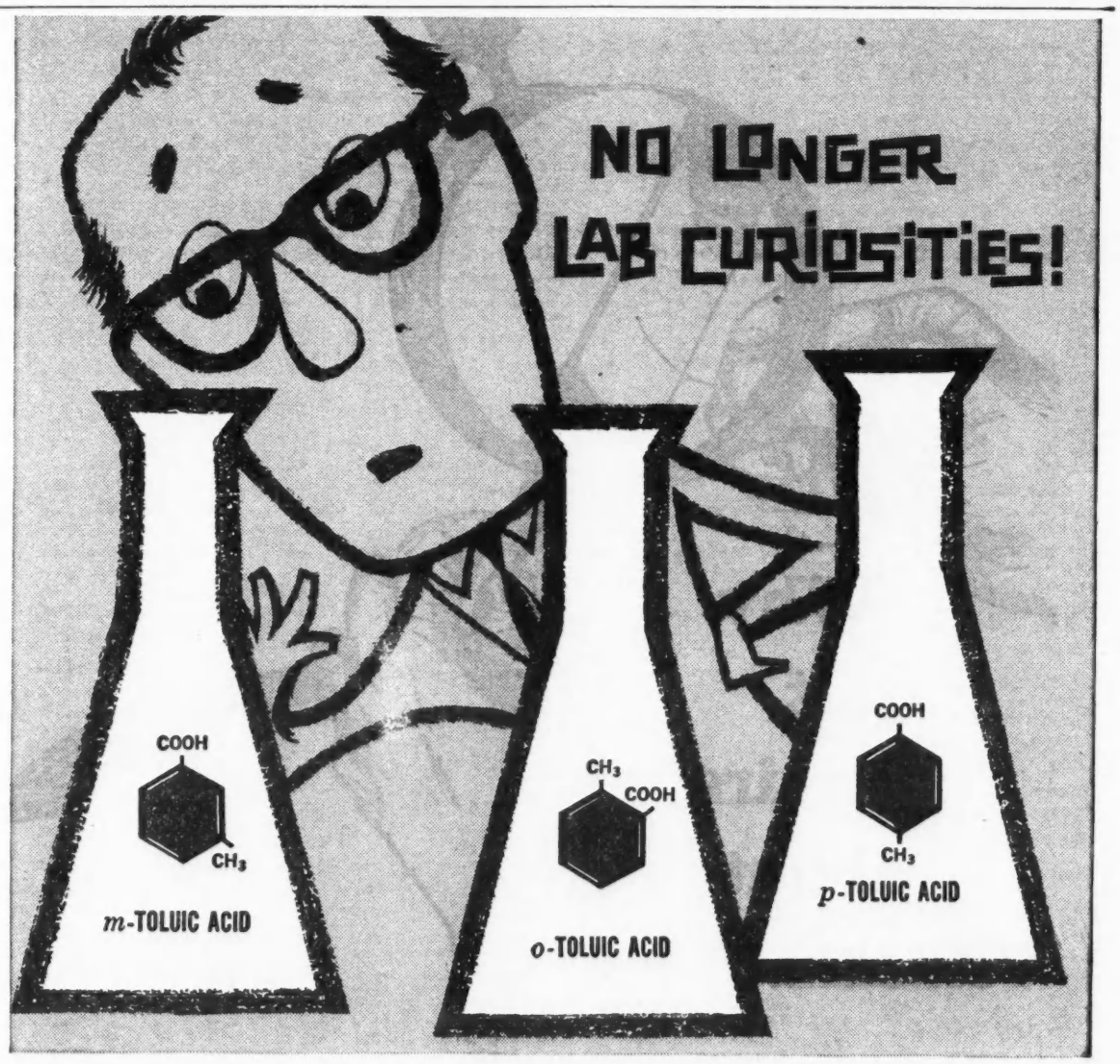
Sulfuric acid, 60° Be. chys., c.l., works..100 lbs. 1.00 - —
chys., l.c.l., works ..... 100 lbs. 1.30 - —
tanks, works ..... ton.18.00 - —
66° Be, chys., c.l., works..100 lbs. 2.25 - —
chys., l.c.l., works ..... 100 lbs. 2.55 - 3.35
tanks, works ..... ton.22.35 - —
98%, tanks, works ..... ton.23.50 - —
99%, tanks, works ..... ton.23.70 - —
100%, tanks, works ..... ton.23.95 - —
CP, NF, consumers' chys., c.l., frt. equald lb. .12¾ - —
Sulfuric acid, CP, NF, consumers', chys., l.c.l., same basis. lb. .14¼ - .14¾
5-pt. bots., extra, cs., c.l., works, frt. alld lb. .16¼ - —
5-pt. bots., extra, cs., l.c.l., same basis lb. .17¾ - .18¾
Sulfuric acid, fuming (oleum), 20%, tanks, works ton.25.00 - —
40%, tanks, works ..... ton.29.00 - —
65%, tanks works ..... ton.39.50 - —
Superphosphate, run-of-pile under 22% a.p.a., pulv., bulk, c.l., Baltimore unit-ton. .90 - .93
bulk, c.l., Carteret, N. J. unit-ton. .90 - .93
bulk, f.o.b. vessel at Fla. unit-ton. 1.03 - —
Superphosphate, triple, 48% or more a.p.a., pulv., bulk, c.l., East Tampa, Fla., unit-ton. 1.00 - —
Sweet birch oil, USP, northern, cns lb. 4.00 - 9.50
USP, southern, cns ..... lb. 2.00 - 3.05

T

2,4,5-T, dms., c.l., works, frt. equald. lb. 1.18 - —
dms., l.c.l., same basis ..... lb. 1.25 - —
2,4,5-T, isopropyl ester, dms., c.l., works, frt. equald lb. 1.24 - —
dms., l.c.l., works ..... lb. 1.29 - —
Talc, dom., fibrous, grd., bgs., c.l., works, New York ton.28.00 - —
bgs., l.c.l., works ..... ton.31.00 -36.00
fibrous, 99.5%, 325 mesh, bgs., c.l., works, New York ton.31.00 - —
bgs., l.c.l., works ..... ton.34.00 - —
Talc, dom., fibrous, 99.95%, 400 mesh, micronized, bgs., c.l works ton.38.00 - —
625 mesh, micronized, bgs., c.l., works ton.80.00 - —
ord., Calif., grd., bgs., c.l., works ton.34.00 -39.50
Vermont, off-color, grd., bgs., c.l., works ton.19.40 - —
bgs., l.c.l., works ..... ton.37.00 - —
Imp., Canadian, grd., bgs., c.l., mines ton.20.00 -35.00
Tall oil, crude, dms., c.l., works lb. .04¼ - .04½
tanks, works ..... lb. .02⅞ - .03
Dist., depending on grade, dms., c.l., works lb. .06¼ - .07¼
dms., l.c.l., works ..... lb. .07 - .08
tanks, works ..... lb. .04½ - .05¼
Tall oil, refd., depending upon grade, dms., c.l., works lb. .07¼ - .09
dms., l.c.l., works ..... lb. .07½ - .09¼
tanks, works ..... lb. .05¼ - .06¾
Tall oil acids, dms., c.l., works..lb. .07 - .10
dms., l.c.l. ..... lb. .07½ - .10½
tanks, works ..... lb. .05 - .08
Tallow, edible, tanks, dlvd .... lb. .08⅞ - —
Inedible, fancy, bleachable, tanks. lb. .05⅝ - —
fancy, guaranteed, bulk, f.o.b. steamer lb. .06¼ —
dms., f.a.s. ..... lb. .07¼ - —
tanks, dlvd. ..... lb. .05⅞ - .06
No. 1, tank, dlvd ..... lb. .04⅝ - —
Prime, tanks, dlvd ..... lb. .05⅜ - —
Special tanks, dlvd ..... lb. .05¼ - —
Sulfonated, 25%, bbls., l.c.l. lb. .08½ - .08¾
50%, bbls., l.c.l. ..... lb. .10½ - .11
Tallow acids, dist., dms. ..... lb. .13¼ - .15¾
tanks ..... lb. .10¾ - —
Hydrogenated, dms. ..... lb. .14¾ - .17¼
Tallow oil, acidless, dms., c.l. .. lb. .13½ - —
dms., l.c.l. ..... lb. .14½ - .15½
Tangerine oil, Florida, dms ..... lb. 4.75 - —
Tankage, animal, feeding, 9-11% ammonia, New York bulk. unit-ton. 4.75 - 5.00
Tannic acid, NF, fluffy, bbls., 1,000-lb. lots lb. 2.05 - —
bbls., smaller lots ..... lb. 2.06 - 2.07
NF, powd., bbls., 1,000-lb. lots..lb. 1.95 - —
bbls., smaller lots..... lb. 1.96 - 1.99
Tech., dms. ..... lb. 1.05 - —
Tansy oil, dms ..... lb. 6.60 - 8.00
Tar acid oil, 15-18%, dms., c.l., frt. equald gal. .53½ - —
dms., l.c.l., same basis ..... gal. .55½ - —
tanks, same basis ..... gal. .43½ - —
Tar acid oil, 25-28%, dms., c.l., same basis gal. .60 - —
dms., l.c.l., same basis ..... gal. .62 - —
tanks, same basis ..... gal. .50 - —
50-53%, dms., c.l., same basis..gal. .75 - —
dms., l.c.l., same basis ..... gal. .77 - —
tanks, same basis ..... gal. .65 - —
Tar, coal (see Coaltar).
Tartar emetic (see Antimony potassium tartrate).
Tartaric acid, NF, 100-lb. bgs., c.l., frt. equald lb. .41 - —
bgs., 10,000 lbs. 1 shipt., same basis lb. .43 - —
bgs., smaller lots, same basis lb. .47 - —
Terpine hydrate, NF, cryst., powd., 100-lb. fib. dms. lb. .70 - —
Terpineol, extra, dms ..... lb. .50 - .60
Prime, dms. ..... lb. .40 - .50
Terpinyl acetate, extra, cns., dms. lb. .64 - .75
Prime, dms. ..... lb. .53 - .56
Terpinyl propionate, dms. ..... lb. 1.70 - —
Testosterone, USP, bots. .... gram. No prices.
Testosterone propionate, USP, bots. gram. No prices.
Tetrachloroethane, dms., works..lb. .14½ - —
Tetrasodium pyrophosphate (see Sodium pyrophosphate).
Tetrachloroethylene, tech. (see Perchloroethylene).
Tetrachloroethylene, USP, 55-gal. dms., c.l., t.l., works..lb. .20¼ - —
dms., l.c.l., works ..... lb. .22 - .23½
Tetraethyl orthosilicate, dms., c.l., dlvd. E..lb. .60 - —
dms., l.c.l., dlvd. E ..... lb. .61½ - —
Tetraethyl pyrophosphate, 40%, cns., dms., frt. equald..lb. .75 - —
Tetraethylenepentamine, dms., c.l., dlvd. E..lb. .53½ - —
dms., l.c.l., dlvd. E ..... lb. .55 - —
tanks, dlvd. E ..... lb. .51 - —
Tetraethylthiuram disulfide, tech., dms., frt. alld..lb. 1.04 - —
Tetrahydrofuran, dms., c.l., t.l., works..lb. .36½ - —
dms., l.c.l., or l.t.l., works..... lb. .37 - —
tanks, works ..... lb. .35 - —
Tetrahydrofurfuryl alcohol, dms., c.l., t.l., Memphis, Tenn. lb. .31½ - —
dms., l.c.l., Memphis, Tenn..lb. .32½ - —
dms., c.l., t.l., Newark, N.J..lb. .33½ - —
dms., l.c.l., Newark, N.J..... lb. .34½ - —
tanks, dlvd. E. of Denver..... lb. .31 - —
tanks, dlvd. W. of Denver..... lb. .33 - —
Tetrahydrophthalic anhydride, dms., c.l., t.l., frt. alld. E..lb. .39 - —
l.c.l., t.l., same basis..... lb. .41 - —
Tetrapotassium phosphate (see potassium phosphate).
Thallium metal, dlvd..... lb. 7.50 -10.00
Thallium sulfate, 99%, bots., dlvd. lb. 5.00 -10.00
Theobromine, NF, fib dms., 100-lbs., f.o.b., works..lb. 4.40 - 5.50
Theobromine and sodium acetate, USP, fib. dms., 500-lbs. works lb. 6.43 - —
Theobromine, sodio-salicylate, NF, fib. dms., 500-lbs., works. lb. 3.80 - —
Theophyline, USP, anhyd., 100-lb. dms., frt. alld lb. 3.65 - —
Thiamine hydrochloride, USP, fib. dms., frt. alld kilo.36.00 - —
USP, ampule grade, fib., dms., frt. alld kilo.38.00 - —
Thiamine mononitrate, USP, fib. dms., frt. alld kilo.36.00 - —
Thiocarbanilide, dms., ton lots..lb. .72 - —
dms., less ton lots..... lb. .74 - —
Thiodiphenylamine (see Phenothiazine).
Thioflavin green toner, brilliant, molybdated, PMA, kgs., works lb. 5.20 - —
Tungstated, PTMA, kgs., works.lb. 6.20 - —
Thioglycolic acid, refd., 55 gal. dms., ton lots, 100% basis..lb. 1.15 - —
Thiosalicylic acid, 80%, dms., 1,000-lb., lots, works lb. 4.00 - —
Thiourea, tech., bgs., t.l., frt. alld. lb. .30 - —
bgs., ton lots, same basis...lb. .32 - —
bgs., less than ton lots, same basis lb. .33 - —
Thorium nitrate, purif., fib. dms., 100-lb. lots or more, works lb. 3.50 - —
di-Threonine, bots., 1-kilo lots. kilo.275.00 - —
Thyme leaves, French, triple sifted extra, bgs..lb. .28 - —
Spanish, extra, bgs..... lb. .11 - —
triple sifted, bgs. ..... lb. .25 - —
Spanish, bgs. ..... lb. .09 - —
Thyme oil, NF, red, cns., dms....lb. 1.80 - 3.00
NF, white, cns..... lb. 2.10 - 3.20
Tech., white, cns. ..... lb. .40 - 1.85
Thymol, fib. dms., 25-lbs., f.o.b. works..lb. 3.06 - —
Thymol iodide, NF, dms., 100-lbs. f.o.b. works..lb. 7.40 - —
Timbo root (see Cube root).
Tin chloride (see Stannous chloride, anhyd.).
Tin crystals (see Stannous chloride, hydrous).
Tin metal (Straits) ..... lb. 1.02 - —
Tin oxide (see Stannic oxide).
Tin sulfate (see Stannous sulfate).
Tin tetrachloride, anhyd. (see Stannic chloride, anhyd.).
Titanium dioxide, anatase, ceramic, bgs., c.l., dlvd..lb. .25½ - —
bgs., l.c.l., dlvd. ..... lb. .26½ - —
reg., bgs., c.l., dlvd. ..... lb. .25½ - —
bgs., l.c.l., dlvd. ..... lb. .26½ - —
metallurgical, nat., bgs., c.l., f.o.b. Jacksonville, Fla.ton.180.00 - —
bgs., 5-ton lots, Niagara Falls, N. Y....ton.205.00 - —
bgs., ton lots, same basis. ton.215.00 - —
Milled metallurgical titanium dioxide $7.50 per ton higher.
Titanium dioxide, rutile, nonchalking, bgs., c.l., dlvd. E..lb. .27½ - —
bgs., l.c.l., dlvd. E..... lb. .28½ - —
Titanium dioxide-calcium pigment, 30% Ti O_2, reg., bgs., c.l., dlvd lb. .09¾ - —
bgs., l.c.l., works ..... lb. .09¾ - —
50% Ti O_2, high-tinting, dms., c.l., lb. .14⅜ - —
dms., l.c.l. ..... lb. .14⅞ - —
Titanium hydride, powd., dms., works lb. 8.10 9.00
Titanium tetrachloride, tech., dms., c.l., works..lb. .26 - —
dms., l.c.l., works..... lb. .27½ - .29
tanks, works ..... lb. .20 - —
Tobias acid, dms., c.l., t.l. ..... lb. .78 - —
dms., l.c.l. ..... lb. .81 - —
d-a-Tocopherols, NF, mixer, conc., pure basis, bots kilo.67.00 - —
d-a-Tocopheryl acetate, NF, conc., pure basis, bots kilo.122.00 - —
d-a-Tocopheryl acid succinate, cryst., bots kilo.109.00 - —
di-a-Tocopherol, bots. ..... kilo.99.00 - —
di-a-Tocopheryl acetate, bots kilo.90.00 - —
25% dry, powd., bots ..... kilo.22.50 -24.50
33% dry, powd., bots. ..... kilo.30.00 -31.50
o-Tolidine base, dry, kgs., 100% basis..lb. 1.53 - —
Paste, kgs., 100% basis..... lb. 1.50 - —

TOLUOL
Toluol quotations, both coaltar and petroleum, may be found under Toluene.

o-Tolidine, hydrochloride paste, kgs., 100% basis..lb. 1.50 - —
Tolu balsam, cns. ..... lb. 3.50 - 3.65



Cowles provides high purity Toluic Acids in commercial quantities

Whether your interest is in pharmaceuticals, insecticides, dyestuffs, alkyd resins or polyester resins, Cowles' facilities for large-scale production of o-Toluic, m-Toluic and p-Toluic acids make it possible for you to consider their various advantages as organic building blocks in commercial operations.

Send for Technical Data Sheets and prices.

1885 Cowles 1960

75th Anniversary
CHEMICAL COMPANY
Cleveland 3, Ohio

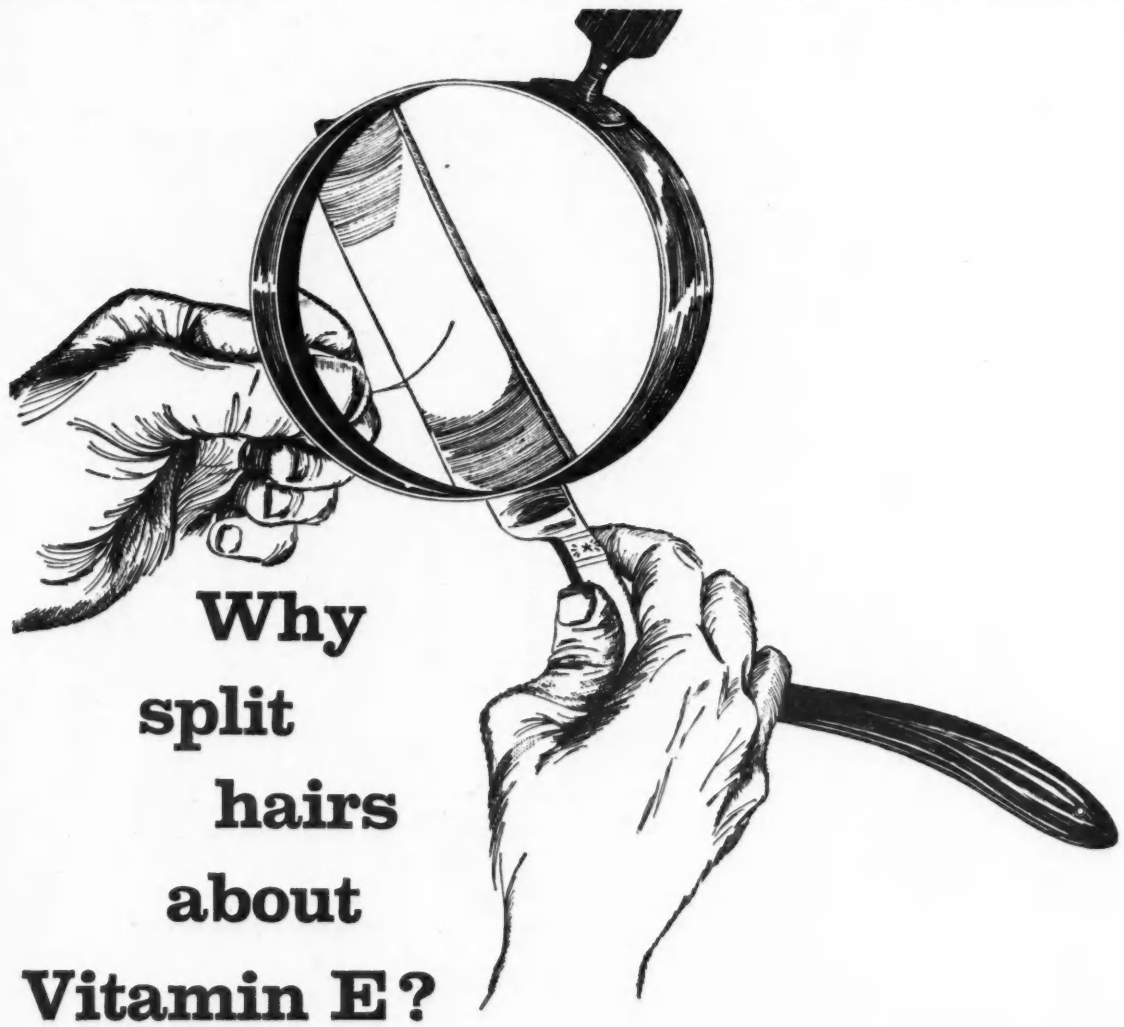
Toluene, coaltar, indust., or nitration, tanks, dlvd. E. of Rockies gal. .25 - —
Toluene, petroleum, indust., tanks, dlvd. E. of Rockies gal. .28 - —
p-Toluenesulfonamide, powd., dms., t.l., works lb. .60 - —
dms., l.t.l., same basis lb. .63 - —
Toluenesulfonic acid, 55-gal. dms., t.l., frt. alld lb. .16 - —
1,000-lb. or more, same basis lb. .18 - —
less than 1,000-lb., same basis lb. .23 - —
tanks, same basis lb. .14 - —
Toluenesulfonic acid in 10-gal. dms., 2c. per lb. more.
p-Toluenesulfonic acid monohydrate, dms., c.l., or t.l lb. .90 - —
dms., 125 lbs. to t.l. lb. 1.00 - —
m-Toluidine, dms., c.l., works, frt. alld lb. .83 - —
dms., l.c.l., same basis lb. .84 - —
tanks, same basis lb. .82 - —
o-Toluidine, dms., c.l., works, frt. alld lb. .30 - —
dms., l.c.l., same basis lb .31 - —
tanks, same basis lb. .28 - —
p-Toluidine, tech., flake, dms., frt. alld lb. .50 - —
Cast, dms., frt. alld. lb. .45 - —
p-Toluidine-m-sulfonic acid, dms., works lb. .92 - 1.04
Toluidine red toner, deep shades, kgs., works lb. 1.70 - —
Light shades, kgs, works lb. 1.70 - —
2,4-Tolylenediamine, cryst., fib. dms., l.c.l., frt. alld lb. 1.10 - —
Tonka beans, Angostura, cks. lb. 1.50 - —
Brazilian, Surinam, cs. lb. 1.30 - —
Totaquine, 100-oz. lots, cns. oz. .43 - —
Toxaphene, dms., c.l., t.l., works. lb. .22 - —
dms., l.c.l., l.t.l., works lb. .28 - —
Tragacanth gum, No. 1, ribbons, cs. lb. 4.10 - 4.20
No. 2, cs. lb. 3.75 - 3.80
No. 3, cs. lb. 3.40 - 3.65
USP, powd., bbls. lb. 1.05 - 1.15
Triacetin dms., c.l., dlvd. E. of Rockies lb. .39 - —
dms., l.c.l., same basis lb. .40 - —
tanks, same basis lb. .37 - —
Triallylamine, dms., c.l., dlvd lb. .985 - —
dms., l.c.l., dlvd. lb. .995 - —
tanks, dlvd. lb. .96 - —
Tributyl citrate, tech., non-ret. dms., c.l., frt. alld. E. of Denver. lb. .42½ - —
non-ret. dms., l.c.l., frt. alld. E. of Denver lb. .43½ - —
tanks, frt. alld. E. of Denver lb. .40 - —
Tributyl phosphate, dms., c.l., works. lb. .52½ - —
dms, l.c.l., same basis lb. .53½ - —
tanks, same basis lb. .50 - —
Tributylamine dms., c.l., works lb. .67½ - —
dms., l.c.l., same basis lb. .69 - —
tanks, same basis lb. .65 - —
Tributyrin, dms., l.c.l., dlvd. lb. .69 - —
Trichloroacetic acid, 300 lb. dms., c.l. lb. .52 - —
Trichlorobenzene, dms., c.l., frt. alld. E. lb. .15 - —
dms., l.c.l., frt. alld. E. lb. .16 - —
tanks, frt. alld. E. lb. .13¼ - —
Trichlorobenzene prices in the West 1¼c. higher.
1,1,1-Trichloroethane, dms., c.l., dlvd. lb. .13¼ - —
dms, l.c.l., dlvd. lb. .16¼ - —
tanks, dlvd. lb. .12¼ - —
1,1,2-Trichloroethane, dms., c.l., works lb. .13½ - —
dms., l.c.l., dlvd. E. lb. .14¼ - —
tanks, works lb. .11½ - —
Trichloroethylene, dms., c.l., or t.l., dlvd. lb. .14 - —
dms., l.c.l., dlvd. lb. .15¼ - —
tanks, dlvd. lb. .12¾ - —
Trichloroisocyanuric acid, dms., c.l., t.l., frt. equald. lb. .65 - —
dms., l.c.l., same basis lb. .75 - —
Trichlorophenoxyacetic acid (see 2,4,5-T).
Tricholine citrate, 65% soln., ret. cbys., works, frt. adjusted. lb. 1.40 - 1.45
Tricresyl phosphate, coaltar, dms., c.l., dlvd. lb. .35 - —
dms., l.c.l., dlvd. lb. .36 - —
tanks, dlvd. lb. .32½ - —
Tricresyl phosphate, petroleum, dms., c.l., dlvd. lb. .34½ - —
dms., l.c.l., dlvd. lb. .35½ - —
tanks, dlvd. lb. .32½ - —
Tridecyl alcohol, mixed isomers, dms., c.l., dlvd. E. lb. .26½ - —
dms., l.c.l., dlvd. E. lb. .28 - —
tanks, dlvd. E. lb. .24 - —
Triethanolamine, dms., c.l., dlvd. E. lb. .24½ - —
dms., l.c.l., same basis lb. .26 - —
tanks, same basis lb. .22 - —
Triethanolamine lauryl sulfate, dms., c.l., t.l., frt. alld. lb. .25¼ - —
dms., l.t.l., frt. alld. lb. .26¼ - —
tanks, frt. alld. lb. .24½ - —
Triethylamine, dms., c.l., dlvd. E. lb. .50 - —
dms., l.c.l., same basis lb. .51¼ - —
tanks, same basis lb. .47½ - —
Triethyl nitrate, refd., tech., non-ret. dms., c.l., frt. alld. E. of Denver lb. .46¼ - —
non-ret. dms., l.c.l., frt. alld. E. of Denver lb. .47¼ - —
tanks, frt. alld. E. of Denver. lb. .43¾ - —
Triethyl phosphate, dms., c.l., dlvd. lb. .40½ - —
dms., l.c.l., dlvd. lb. .42 - —
tanks, dlvd. lb. .38 - —
Triethylene glycol, dms., c.l., dlvd. E. lb. .21 - —
dms., l.c.l., dlvd. E. lb. .22½ - —
tanks, same basis lb. .18½ - —
Triethylenetetramine, dms., c.l., dlvd. E. lb. .51½ - —
dms., l.c.l., dlvd. E. lb. .53 - —
tanks, dlvd. E lb. .49 - —
Triisobutylene, tanks, dlvd. lb. .08 - —
Tri-isopropanolamine, dms., c.l., dlvd. E. lb. .23¼ - —
dms., l.c.l., dlvd. E. lb. .24¾ - —
tanks, dlvd. E lb. .20¾ - —
Trimethylamine, anhyd., cyls., l.c.l., frt. equald, 100% basis lb. .30 - .305
tanks, frt. equald, 100% basis. lb. .26 - —
25-40% soln., dms., c.l., frt. equald, 100% basis lb. .35 - —
dms., l.c.l., frt. equald, 100% basis lb. .35½ - —
tanks, 100% basis, frt. equald lb. .26 - —
Trimethylolpropane, dms., c.l., t.l., dlvd. E. lb. .35 - —
dms., l.c.l., l.t.l., same basis lb. .36 - —
Trioxanes, pure, dms., c.l., t.l., works lb. .50 - —
dms., l.c.l., works lb. .51½ - —
Tripentaerythritol, bgs., c.l., t.l., dlvd. E lb. .40 - —
bgs., l.c.l., l.t.l., dlvd. E lb. .41 - —
Triphenyl phosphate, bbls., c.l., frt. equald lb. .41½ - —
bbls., l.c.l., frt. equald lb. .43½ - —
Triphenylguanidine, bbls., works lb. .90 - —
Tripropylene, dms., c.l., dlvd. E gal. .44 - —
dms., l.c.l., same basis gal. .54 - —
tanks, same basis gal. .28 - —
Tripropylene glycol, dms., c.l., t.l., frt. alld. E lb. .20½ - —
dms., l.c.l., l.t.l., frt. alld. E lb. .22 - —
tankcars and compartmented tankcars, frt. alld. E lb. .17½ - —
Tripropylene glycol, tankwagon and compartmented tankwagons, 1,000 gals. min. frt. alld. E lb. .18 - —
Tripropylene glycol prices 1c. per lb. higher in west.
Trisodium phosphate (see Sodium phosphate tribasic).
dl-Tryptophane, fib., dms., works lb. 5.00 - —
Tung oil, dms., New York lb. .24 - .24½
tanks, imported, N. Y. lb. .22½ - .22¾
tanks, domestic, mills lb. .22½ - .22½
Tungsten metal, powd., 2.0-2.5 microns, dms., works lb. 4.25 - —
Tungstic acid, tech., dms., 1,000-lb. lots, works lb. 2.25 - —
dms., smaller lots, works lb. 2.45 - —
Turkey red, bbls., works lb. .62 - —
Turpentine, gum (see Protective Coatings market, Naval Stores).
Turpentine oil, NF, cns., dms lb. .28 - .50
Tuscan red, bbls., frt. equald lb. .26 - .32
Tyrothricin, USP, 1 to 5 kilos gram. .54 - —

U

Ultramarine blue, cobalt type, dry or pulp, 250-lb. bbls., dlvd. E. of Rockies lb. .30½ - .35
Jobbing types, dry, bbls., same basis lb. .16 - .22½
Regular types, dry bbls., same basis lb. .16 - .37½
Ultramarine blue prices 1c. higher W. of Rockies.
Umber pigment, burnt, American, bgs., c.l., works lb. .07½ - .07¾
bgs., l.c.l., works lb. .07¾ - .08
Umber pigment, burnt, turkey-type, bgs., c.l., Boston, Bethlehem, Easton, Pa., Hiwassee, Va., N. Y lb. .08¼ - —
Raw, American, bgs., works lb. .07¾ - .08¼
Turkey-type, bgs., works lb. .08½ - .08¾
Undecylenic acid, dms. lb. 1.28 - —
Unicorn root, false (see Helonias root).
Unicorn root, true (see Aletris root).
Urea, 46% N, indust., bgs., c.l., t.l., dlvd. E ton. 125.00 - —
bgs., l.c.l., dlvd. E. ex whse. ton. 145.00 - —
45% N, agricultural, bgs., c.l., (30 tons) dlvd. E ton. 103.00 - —
Urea-ammonia liquor A, B, C & F grades, N basis, tanks, frt. equald ton. 120.00 - —
37 grade, tanks, same basis ton. 145.00 - —
Urethane, USP, dms., t.l., f.o.b., works lb. .65 - —
dms., l.t.l., same basis lb. .70 - —
Uva-ursi leaves, bls lb. .12 - —

V

Valerian root, Belgian bgs. lb. .32 - —
Indian, bgs. lb. .25 - —
dl-Valine, dms., works lb. 21.00 - 27.50
Vanadium pentoxide, tech., dms., works lb. 1.38 - —
Vandyke brown, bbls., works lb. .09½ - .12
Vanilla beans, Bourbon, tins lb. 10.25 - —
Mexican cuts, tins lb. 10.25 - —
whole, tins lb. 10.75 - —
Vanillin ex lignin, 100-lb. fib. dms., 2,000-lb. lots or more lb. 2.50 - —
less than 2,000 lbs. lb. 2.70 - —
Venetian red, jobbing, bgs., works. lb. .0475- —
Venetian red, 20%, bgs., works lb. .0525- —
25%, bgs., works lb. .0575- —
30%, bgs., works lb. .06 - —
35%, bgs., works lb. .0625- —
40%, bgs., works lb. .0675- —
Vetiver oil, Bourbon, cns. lb. 17.25 - 17.50
Haitian, cns. lb. 14.00 - 14.50
Victoria blue toner, molybdated, PMA 250-lb. bbls., dlvd. E. of Rockies lb. 4.50 - 4.95
Tungstated, PTMA, 250-lb. bbls., dlvd. E. of Rockies lb. 5.55 - —
Victoria blue toner, bbls., prices 1c. higher W. of Rockies.
Vinyl acetate monomer, zone 1, 55-gal. dms., c.l., dlvd lb. .1810- —
55-gal. dms., l.c.l., dlvd lb. .1960- —
tanks, dlvd. lb. .1560- —
tanktrucks less than 4,000 gal., dlvd lb. .1610- —
Zone 2, 55-gal. dms., c.l., dlvd lb. .1910- —
55-gal. dms., l.c.l., dlvd lb. .2210- —
tanks, dlvd. lb. .1660- —
tanktrucks, less than 4,000 gals., dlvd lb. .1710- —
Zone 1 is all continental US except zone 2, zone 2 comprises Ariz., Calif., Idaho, Mont., Nev., Ore., Utah and Wash.



Why split hairs about Vitamin E?

Vitamin E is Vitamin E. It has to be.

- A unit is a unit.*
- You buy a unit.
- You pay for a unit.
- You label it a unit.

A unit of E is a unit of E
No matter what the kilo cost may be;
The unit cost is based on parity.
Type makes no difference, as you can see.

*THE RECOGNIZED INTERNATIONAL UNIT OF VITAMIN E IS 1 MILLIGRAM OF DL-ALPHA-TOCOPHERYL ACETATE, ADOPTED IN 1941 USING ROCHE VITAMIN E FOR THE STANDARD.

Get your Vitamin E *right* from Roche.

FINE CHEMICALS DIVISION **HOFFMANN-LA ROCHE INC.** Nutley 10, New Jersey

ROCHE® ©1960 HLR INC.

Vinyl n-butyl ether, tech., dms., l.c.l., works	lb.	.50	—
Vinyl chloride monomer, tanks, works	lb.	.125	—
Vinyl ether, USP, anethesia, bots., 50cc., hospitals	bot.	1.12	—
bots., 75cc., hospitals	bot.	1.56	—
Vinyl ethyl ether tech. dms., c.l., works	lb.	.29¼	—
dms., l.c.l., works	lb.	.30	—
tanks, works	lb.	.27¼	—
Vinyl propionate monomer, dms., c.l., dlvd	lb.	.49	—
dms., l.c.l., same basis	lb.	.50	—
tanks, same basis	lb.	.47	—
Vinyl trichloride (see Trichloroethane).			
2-Vinylpyridine, 10 dms. to tanks, works	lb.	1.20	—
1 to 9 dms., works	lb.	1.35	—
tanks, works	lb.	1.15	—
Vinyltoluene, dms., c.l., f.o.b., works.	lb.	.16½	—
dms., l.c.l., same basis	lb.	.18½	—
tanks, f.o.b. dest. frt. prepaid	lb.	.14	—
Viosterol in nat. vegetable oil, 1,000,000 D units per gram, bots., lots of 10 billion USP units	1,000,000 units.	.02½	—
Virginia type red, bbls., works	lb.	1.40	—
Vitiamin A acetate, syn., cryst., beads, 500,000 A units per gram	gram	.07¼	—
Vitamin A acetate, dry, 500,000 units per gram, kilo lots	kilo.	65.00	—
325,000 units per gram, same basis	kilo.	43.88	—
250,000 units per gram, same basis	kilo.	33.75	—
Dry vitamin A acetate in less than kilo lots, $1.25 to $2.50 per kilo higher.			
Vitamin A, liq. in oil, 1,000,000 A units per gram 1,000,000 units.		.09½	—
Vitamin A palmitate, liq., 1,000,000-1,800,000 A units per gram 1,000,000 units.		.09½	—
Vitamin B_1 (see Thiamine hydrochloride).			
Vitamin B_2 (see Riboflavin and Yeast).			
Vitamin B_{12}, cryst., USP (cyanocobalamin), 1-50 grams, vials, tins	gram	83.00	—
0.1% vitamin B_{12}, USP, adsorbed on gelatin, 100 and 500-gram bots on 1-5 kilo dms	gram	1.00	—
0.1% vitamin B_{12}, USP adsorbed on resin, 100 and 500-gram bots., 1-5 kilo dms., gram.		1.00	—
Vitamin B_{12}, oral grade solids in containers of 1 and 10 gram of B_{12} activity	gram	85.00	—
0.1% trituration of cryst., B_{12} with dicalcium phosphate or mannitol, 1-10	kilo.	95.00	—
Vitamin B_{12}, 0.1% cobalamin concentrate, NF, adsorbed on resin, 500-gram bots., 1-5 kilo, dms., frt. alld	gram.	.90	—
0.1% cobalamin concentrate in gelatin, 1-10 kilo. dms., frt. alld	gram.	.90	—
Vitamin C (see Ascorbic acid).			
Vitamin D_2 (see Codliver and Fishliver oils, Calciferol and Viosterol).			
Vitamin D, dry, 850,000 units per gram, kilo lots	kilo.	42.50	—
850,000 units per gram less than kilo lots	kilo.	45.00	—
Vitamin E (see a-Tocopherol and Wheat germ oil).			
Vitamin H (see Biotin).			
Vitamin K, active (see Menadione).			
Violet methyl toner (see Methyl violet toner).			
VM&P naphtha (see Naphtha, VM&P, petroleum).			

W

Wahoo root bark, bls.	lb.	2.00	2.25
Warfarin, 0.5%, dms., 50-lb. lots, dlvd	lb.	1.95	—
dms., 25-49-lb. lots, New York or Chicago	lb.	2.05	—
dms., 5-24-lb. lots, New York or Chicago	lb.	2.15	—
Watchung-type reds., bbls	lb.	1.95	—

WAXES
Wax quotations are listed individually. For example, prices on Wax, carnauba, may be found in the C's under Carnauba wax.

Wheat germ oil, 5-gal. dms.	gal.	12.25	—
White lead (see Lead, white).			
White mineral oil (see Mineral oil, white).			
White pine bark, rossed, bls.	lb.	.21	.22
White precipitate, USP, powd., dms., 100 lbs., f.o.b. works	lb.	5.50	—
Whiting (see Calcium carbonate).			
Wild cherry bark, thin, nat., bls	lb.	.22	—
Thin, rossed, bls.	lb.	.22	Nom.
Wintergreen oil, USP nat. northern, cns	lb.	6.35	-17.50
USP, nat. southern cns	lb.	3.75	7.00
Wintergreen oil, syn. (see Methyl salicylate).			
Witch hazel bark, bls	lb.	.16	.17
Witch hazel leaves, bls.	lb.	.27	.28
Wollastonite fine bgs., c.l., works.	ton.	39.50	—
bgs., l.c.l., ex whse	ton.	56.00	—
Medium, bgs., c.l., works	ton.	27.00	—
bgs., l.c.l., ex whse.	ton.	44.00	—
Wood alcohol (see Methanol).			
Wood oil (see Tung oil).			
Woolfat crude (see Degras).			
Woolfat USP (see Lanolin).			
Wormseed Levant bgs.	lb.	2.50	—
Wormseed oil (see Chenopodium oil NF).			
Wordwood oil, cns.	lb.	4.50	4.75

X

Xylene coaltar, indust., tanks, works:			
Bethlehem, Pa.	gal.	.29	—
Birmingham dist.	gal.	.29	—
Chicago dist.	gal.	.28½	—
Cleveland dist.	gal.	.29	—
Geneva, Utah	gal.	.29	—
Johnstown, Pa.	gal.	.29	—
Lackawanna, N. Y	gal.	.29½	—
Lone Star, Tex.	gal.	.27	—
Lorain, Ohio	gal.	.29	—
Middletown, Ohio	gal.	.30	—
Minnequa, Col.	gal.	.29	—
Philadelphia dist.	gal.	.29	—
Pittsburgh dist.	gal.	.29	—
Sparrows Point, Md.	gal.	.29	—
Terre Haute, Ind.	gal	.29	—
Youngstown, Ohio	gal.	.29	—
Xylene, petroleum, indust., tanks f.o.b. works:			
Bayonne, N. J	gal.	.29	—
Baytown, Tex.	gal.	.27	—
Charleston, S. C.	gal.	.29	—
Chicago, Ill	gal.	.28½	—
Detroit, Mich., dlvd	gal.	.27½	.29
Houston, Tex.	gal.	.27	—
Philadelphia, Pa.	gal.	.29	—
Providence, R. I.	gal.	.30	—
Sewell's Point, Va.	gal.	.28	—
Wood River, Ill.	gal.	.28½	—
m-Xylene, 95%, dms., c.l., f.o.b., Richmond, Calif.	lb.	.25	—
dms., l.c.l., f.o.b., Richmond, Calif.	lb.	.26	—
tanks, frt. alld.	lb.	.23	—
o-Xylene, dms., c.l., works	lb.	.08	—
dms., l.c.l., works	lb.	.09	—
tanks, works	lb.	.06	.06½
p-Xylene, dms., c.l., works	lb.	.20	—
dms., l.c.l., works	lb.	.21	—
tanks, frt. alld.	lb.	.1645	—
Xylenol, cryst., 45°-47°C., m.p., dms., l.c.l., works	lb.	.23	—
56°-58°C., m.p., dms., l.c.l., works, frt. equald	lb.	.33	—
Xylenol, cryst., 60°-62°C., m.p., dms., l.c.l., same basis.	lb.	.40	—
Xylenol fraction, b.r. 7°-9° C., dry above 227° C., dms., c.l., same basis	gal.	1.25	—
dms., l.c.l., same basis	gal.	1.30	—
tanks, same basis	gal.	1.05	—
b.r. 7°-9° C., dry at or below 227° C., dms., c.l., same basis.	gal.	1.35	—
Xylenol fraction, b.r. 7°-9° C., dry at or below 227° C., dms., l.c.l., same basis	gal.	1.40	—
2,4-Xylidine, tech., dms., frt. alld.	lb.	1.15	—
2,5-Xylline, tech., dms., frt. alld.	lb.	1.20	—
Xylidines, mixed, o-m-p, dms., c.l., or t.l., works	lb.	.39	—
dms., l.c.l., same basis	lb.	.40	—
tanks, same basis	lb.	.33	—

XYLOL
Xylol quotations, both coaltar and petroleum, may be found under Xylene.

Y

Yara yara oil, ens.	lb.	2.15	3.05
Yeast, brewers, debittered, USP XV, Sacchomyces, dlvd	lb.	.27	—
Yeast, brewers, primary, USP XV, 150 meg. B^1 per gram, 100-lb. dms	lb.	.47	—
USP XV, 270 mcg., B_1 per gram, 100-lb. dms	lb.	.52	—
USP XV, 300 mcg., B_1 per gram, 100-lb. dms	lb.	.56	—
USP XV, 900 mcg., B_1 per gram, 100-lb. dms.	lb.	.60	—
Torula, USP, dlvd.	lb.	.18	—

YELLOW PIGMENTS
Yellow pigment quotations are listed individually. For example, prices on Yellow, benzidine, may be found in the B's under Benzidine yellow.

Yerba santa leaves, bls.	lb.	.40	.45
Ylang-ylang oil, Bourbon, bots	lb.	7.00	-22.00
extra, bots.	lb.	24.00	-33.00
extra, bots.	lb.	24.00	-33.00
Yohimbine hydrochloride, bots., tins.	oz.	3.75	4.25

Z

Zein, bgs., 36,000-lb. lots or more, bgs., 500-lb. lots or more, dlvd	lb.	.343	—
bgs., smaller lots, dlvd	lb.	.373	—
Zinc acetate, NF, VIII, dms	lb.	.53	—
Tech., dms., l.t.l., works	lb.	.29¾	—
Zinc borate, bgs., 1,000 lbs or more, works	lb.	.25	—
bgs., less than 1,000 lbs., same basis	lb.	.27	—
Zinc chloride, NF, gran., dms	lb.	.42	—
NF, precip., powd., dms	lb.	.26	—
Tech., soln., 50%, dms., c.l., works	100 lbs.	5.80	—
dms., l.c.l., works	100 lbs.	6.40	—
tanks, works	100 lbs.	5.15	—
fused, dms., c.l., works	100 lbs.	10.70	—
dms., l.c.l., works	100 lbs.	11.20	—
gran., fib. dms., c.l., works.	100 lbs.	11.45	—
fib. dms., l.c.l., works	100 lbs.	11.95	—
Zinc chromate bbls., dlvd.	lb.	.29	—
Basic bbls., dlvd.	lb.	.34	—
Zinc cyanide, dms., 1,000-lb. lots or more, works	lb.	.55	—
dms., smaller lots, works	lb.	.57	—
Zinc dust coml. bbls., c.l., works.	lb.	.17	—
Pigment, bbls., c.l., works	lb.	.16½	—
bbls., l.c.l., works	lb.	.18¼	—
Zinc fluoride, bbls., works	lb.	.45	.50
Zinc hydrosulfite, dms., c.l., frt. alld	lb.	.21½	—
dms., l.c.l., frt. alld.	lb.	.23½	—
Zinc metal prime western, slabs, E. St. Louis	lb	.13	—
Prime western slabs, New York.	lb.	.13½	—
Zinc naphthenate liq. 8% Zn., dms., frt. alld	lb.	.27	—
10% Zn., dms., frt. alld.	lb.	.33	—
Zinc nitrate, tech., cryst., bbls., works	lb.	.20	—
Zinc oxide, pigment, American process, lead-free bgs., c.l., frt. alld	lb	.14½	—
bgs., l.c.l., 10 tons or more, same basis	lb.	.15	—
bgs., l.c.l., smaller lots, same basis	lb.	.15½	—
Zinc oxide, leaded, 35% bgs., c.l., mills, frt. alld	lb.	.15⅝	—
bgs., l.c.l., 10 tons or more, same basis	lb.	.15⅞	—
50%, bgs., c.l., same basis	lb.	.15¾	—
pigment, American process, leaded, 50%, bgs., l.c.l., 10 tons or more, same basis.	lb.	.16¼	—
USP, gran., dms.	lb.	.26	—
French process, green seal, bgs., c.l., mills, frt alld	lb.	.16¼	—
bgs., l.c.l., 10 tons or more, same basis	lb.	16¾	—
bgs., l.c.l, smaller lots, same basis	lb.	.17¼	—
red seal, bgs., c.l., same basis.	lb.	.15¾	—
bgs., l.c.l., 10 tons or more, same basis	lb.	.16¼	—
bgs., l.c.l., smaller lots, same basis	lb.	16¾	—
white seal, bgs., c.l., same basis	lb.	.16¼	—
bgs., l.c.l., 10 tons or more, same basis	lb.	.17¼	—
bgs., l.c.l., smaller lots, same basis	lb.	.17¾	—
Zinc oxide, USP dms., c.l., frt. alld.	lb.	.18¼	—
dms., l.c.l., 10 tons or more, same basis	lb.	.18¾	—
dms., l.c.l., smaller lots, same basis	lb.	.19¼	—
Zinc phenolsulfonate, NF, gran., dms	lb.	.45	.48
NF, powd., dms.	lb.	.48	.49
Zinc resinate, precip, 7.2-7.6% Zn., dms., frt. alld	lb.	.40¼	—
Zinc silicofluoride, dms., works	lb.	.12½	.14
Zinc stearate, tech., USP, ctns., c.l.	lb.	.41	—
ctns., l.c.l.	lb.	.42	.46
Zinc sulfate, powd., monohydrate, 36% Zn, bgs., c.l., dlvd.E.	100 lbs.	8.75	—
bgs., l.c.l., dlvd. E	100 lbs.	9.75	—
Zinc sulfate in bbls 40c. higher.			
Zinc sulfide, pure, bgs., c.l., dlvd	lb.	.2530	—
Zinc undecylenate, dms.	lb.	2.00	—
Zinc, yellow (see Zinc chromate).			
Zinc-ammonium chloride, bgs., c.l., works	100 lbs.	10.25	—
bbls., c.l., works	100 lbs.	10.85	—
bbls., l.c.l., works	100 lbs.	11.35	—
Zinc formaldehyde sulfoxylate, basic, 300-lb. dms., frt. alld	lb.	.26	—
Normal, 250-lb. dms., frt. alld	lb.	.52	—
Zircon (G) gran., bgs., c.l., works.	lb.	.03½	—
Zircon (G) gran., bgs., 5 tons to c.l., works	lb.	.03¾	—
bgs., 1 ton to 9,999-lb. lots, works	lb.	.04	—
bgs., smaller lots, works	lb.	.06½	—
Zircon (G), milled, bgs., c.l., works	lb.	.04½	—
bgs., 5 tons to c.l., works	lb.	.04¾	—
bgs., 1 ton to 9,999-lb. lots, works	lb.	.04¾	—
bgs., 500-1,999-lb. lots, works	lb.	.07½	—
Zircon (G) in barrels 1c. higher.			
Zirconium acetate soln., 13% ZrO_2, dms., c.l., 30,000 lbs. min., works	lb.	.23	—
Zirconium hydride powd., electronic grade, dms., works	lb.	14.00	-15.00
Zirconium oxide, CP, white, grd., bbls. or bgs., works	lb.	1.50	—
Electric-fused lump, bgs., 500 to 1,999-lb. lots, works	lb.	.48½	—
bgs., smaller lots, works	lb.	.51	—
milled, bgs., c.l., works	lb.	.62	—
bgs., 5-ton lots, works	lb.	.62½	—
bgs., 1-ton to 9,999-lb. lots, works	lb.	.63½	—
bgs., 500 to 1,999-lb. lots, works	lb.	.64	—
bgs., smaller lots, works	lb.	.66	—
Zirconium Oxide, Glass polishing grade, 94-97% ZrO_2, bgs., works	lb.	.55	.65
Opacifier grade, 85-90% ZrO_2, bgs.,	lb.	.27	.50
Stabilized oxide, 91% ZrO_2, milled, bgs	lb.	.62	.85
Zirconium oxychloride, cryst., ctns., 5-ton lots, works	lb.	.37½	—
bgs., l.c.l., smaller lots, same basis	lb.	.16⅝	—

Bids Wanted

Drugs, Microcrystalline Chloramphenol, 3000 x 2 grams, in rubber capped vials, in boxes of 100 vials. Injection of **Tetracycline Hydrochloride,** 6,000 vials, 500 mgm for intravenous injection. Injection of **Tetracycline Hydrochloride,** 6,000 vials 100 mgm, for intravenous injection. Bids invited until November 29 by the Chairman, Tender Board, Ministry of Health, P.O. Box 500, Colombo, Ceylon. Tender forms may be obtained from the Ceylonese Embassy, 2148 Wyoming Ave., N.W., Washington 25, D. C.

Chlorpromazine Hydrochloride Tablets, USP, 480 bots., Bid RFP 7766Q, Sept. 29.

Sodium Chloride Tablets, impregnated, 11,040 pkgs., Bid RFP 7781Q, Sept. 30.

Sodium Nitrite and Sodium Thiosulfate Injections, 1,344 pkgs., **Erthromycin Tablets,** USP, 14,112 bots., **Perphenazine,** Tablets, 10.56 bots., Bid RFP 7794Q, Oct. 3. **Methocarbanol Tablets,** 3,936 bots., Bid RFP 7768Q, Oct. 3. Military Medical Supply Agency, 29th Street and 3rd Ave., Brooklyn 32, N. Y.

German Picture

—Continued from page 7

fibers. Imports were up 28 percent, while prices declined 2 percent.

A booming international market carried exports to 5.45 billion marks, 63 percent going to the European area. Chemical imports increased 21 percent, the trend being toward increased consumption of intermediate and finished products.

In the crucial area of investment and finance, BDSA reports that German chemical makers invested 1.64 billion marks in 1958, or 9.3 percent of total sales. Corresponding figures for 1959 are not yet available, but BDSA anticipates a small rise to 1.7 billion marks.

Most Plants Sufficient

A majority of firms reported that present plant structures and capacities were sufficient to meet requirements: some stated that profits were insufficient to finance additional investment.

"Rationalization is expected to attract the same proportion of total investment as in preceding years," says BDSA, "but the amount devoted to expansion may decrease slightly in favor of replacements. Investment for automation will probably receive greater emphasis, whereas appropriations for broadening production programs will decline."

Investment for new facilities in 1959 continued to center on basic chemicals, especially crude plastics and noncellulosic fibers. The effects of past investment on productivity were evident as output per worker hour increased substantially.

"It is uncertain," says BDSA, "whether expansion can be continued at present rates without some cutbacks, if the labor shortage is not overcome."

This is the first of two reports on the West German chemical industry. The second, to appear in a later issue, will deal with organic chemicals, foreign trade and the outlook.

France Hits Jackpot

—Continued from page 3

000 tons in 1962 from 151,000 tons in 1958.

- Synthetic rubbers will reach 80,000 tons a year in 1962.
- Capacity for aromatic hydrocarbon derivatives will hit 67,000 tons in 1962 (1958—36,000 tons).
- Carbon black output will reach 100,000 tons in 1962, compared with 30,000 tons in 1958.
- Synthetic ammonia from fuel oil, refinery gases and natural gas will reach 400,000 tons by the end of this year.

The industry has been growing at such a pace that estimates of 1961 consumption which were made in 1956 have already been tossed out the window in favor of upward revision.

Rise in 1961 Estimates*

	1956	1959
Sulfuric acid	1,950,000	2,200,000
Hydrochloric acid	267,000	300,000
Carbon disulfide	38,070	46,310
Nitrogen	755,000	887,000
Benzene	186,000	214,000
Organic intermediates	836,000	1,194,673
Acetics & methylics	312,200	453,305
Plastics	335,400	436,000
Carbon black	20,000	66,000

*Tons.

Here's how France is faring in some of the important product lines:

Plastics—Output in 1952 was only 35,000 tons and rose to 250,000 tons in 1959, of which polyvinyl chloride accounted for one-third.

Pharmaceuticals—French output of pharmaceuticals now exceeds $400 million, 20 percent of which is exported.

Dyestuffs—France produced 13,083 tons of dyestuffs in 1959, up 5.5 percent over 1959. Some 3,601 tons were exported.

Paints and varnishes—Some 495,000 tons were produced in 1959.

Essential oils—Turnover last year was $30 million, with exports of $19.5 million.

Synthetic detergents—Annual output is 40,000 tons of chemical bases.

Vegetable tanning materials—Some 22,000 tons of extract are produced annually.

Exports to foreign markets in 1959 were $285.6 million—more than 10 percent of total industry turnover.

French Chemical Growth

	Tons 1959	Tons 1952
INORGANICS		
Sulfuric acid	1,827,000	1,190,000
Ammonia	663,000	295,000
Calcium carbide	347,000	226,000
Chlorine	275,000	106,000
Soda ash	775,000	635,000
Caustic soda		
Electrolytic	243,000	95,000
Total caustic output	500,000	400,000
ORGANICS		
Methanol	46,000	18,000
Formaldehyde	20,200	10,000
Phenol	41,800	14,400
Acetone	38,200	6,200
Phthalic anhydride	25,000	4,000

French Chemical Exports: 1959

West Germany	$39,100,000
USA	25,600,000
United Kingdom	21,900,000
Italy	21,700,000
Switzerland	20,900,000
Belgium-Luxembourg	20,700,000
Netherlands	13,000,000
Spain	500,000
Sweden	7,300,000
Denmark	4,000,000
Austria	2,800,000
Norway	2,500,000
Portugal	2,500,000
Other	95,300,000
Total	$285,600,000

This story is based on a paper presented by Jacques Roche of Union des Industries Chimiques at last week's Chemical Market Research Association meeting in Portsmouth, N.H.

Magnesium Oxide Is Tied to Steel, Whose Slackness Now Doesn't Hide Potential

OPD 'Depth' Report on Magnesium Oxide

—*Continued from page 5*

oxygen furnace—lined with magnesite-dolomite bricks—has refractory producers licking their chops about future prospects.

Basic oxygen plants now operating include those of Jones & Laughlin Steel Corporation at Aliquippa, Pa., Acme Steel Corporation at Chicago and Kaiser Steel Corporation at Fontana, Calif.

Acceptance of the basic oxygen furnace is gaining in the industry, and projects are now under way at Jones & Laughlin's Cleveland, Ohio, plant. Colorado Fuel & Iron Corporation is also putting in new converters.

Basic's Advantage: Speed

Advantages of the basic oxygen process center around speed in steel refining. Larger units are reported capable of producing eighty tons of steel in about fifty minutes.

Another burgeoning use for magnesite bricks—due again to advancing steelmaking technology—is the roofing of open-hearth furnaces. Use of magnesite refractories in open hearths is old hat, but the industry didn't begin to use it on anything like a large scale until 1957, when six all-basic furnaces went into operation.

Advantages of all-basic open hearths: higher heat input rates, higher operating temperatures and longer refractory life than with silica refractories previously used. Result: higher production capacity with a minimum of capital outlay.

Roofing of open-hearth furnaces is proceeding apace. However, refractory producers know they'll eventually have to reach a saturation point in the market.

Reason is that new steel mill construction is trending away from open-hearth installations toward oxygen converters and electric furnaces of the Strategic-Udy type. Hope is that the new installations will take as much—or more—basic refractory bricks than do the present ones.

New construction and new technology in the steel industry are calling for new methods in the refractory industry. What's needed in the latest refractories is high-purity magnesia; hence the trend toward new capacity from seawater and brines, rather than from ores.

High-Purity Magnesite Needed

Magnesite of a purity well in excess of 97 percent (even higher than 99 percent in some instances) is required in some basic brick uses. Ores in the US are capable of calcining only up to 85-87 percent MgO in most cases.

When it gets down to a matter of dollars and cents per ton of steel these days, the high-purity material is advantageous. A concrete example: Development of a new type of chrome-magnesite basic brick accounted for a steel production increase of 20 percent in one unit.

Further, refractory producers point out that at today's steel producing rates (around 53 percent of capacity), over half is being made in basic furnaces owing to their generally higher efficiencies.

(This doesn't mean that over half of total steel capacity is based on basic refractories; rather, over half at the present rate of operation.)

The magnesite refractory industry freely concedes that steel is the key to good or bad times. But, not wishing to put all its eggs in one basket, it is pushing research and development in several directions.

Among growing uses for basic bricks: copper and other nonferrous metal smelting in reverberatory furnaces, linings for cement, lime and dolomite kilns.

Recovery unit furnaces in paper mills are lined with magnesite refractories, for instance; great quantities are now being used in regenerator checkers in the glass industry. In fact, rotary kiln use is growing everywhere, say producers.

But one thing basic refractory producers can't overlook: Present business has turned sour. Bureau of Census figures dramatically point up the downturn in magnesia brick business:

Shipments of magnesite-chrome (magnesite predominating) bricks in the second quarter dropped to 13.7 million bricks from 17.8 million in the first quarter.

Deliveries of magnesite-chrome (chrome predominating) bricks dropped to 11.8 million bricks in the second quarter from 16.9 million during the first quarter.

Only dead-burned magnesia and magnesite refractories held their own, with 46,535 tons being shipped in the second quarter, compared with 46,376 tons delivered in the first quarter.

Business Prospects for 1960

And there's no getting away from the fact that steel output is currently limping along at little more than half the capacity. The way things are, the best that producers hope for is business about on a par with that of last year—provided there is a substantial upswing in steel output during the fourth quarter.

While the refractory industry—currently mired in lack of demand—can hope for long-term gains, the chemical magnesia market—at present rocking along on a plateau—hardly has even this comfort.

Domestic consumption of caustic-calcined magnesia has risen from 32,254 tons in 1954 to an estimated 55,000 tons this year. A high in consumption of 60,815 tons was reached in 1957, according to the Bureau of Mines.

But after making a 20 percent gain in 1959 over 1958 levels, chemical grade caustic-calcined magnesia is expected by its producers to barely exceed last year's level in 1960.

A look at the end-use pattern is revealing:

• Oxychloride and oxysulfate cement. Consumption for these materials has risen from 10,644 tons in 1954 to an estimated 30,000 tons this year. This is largely due to zooming use in composition building board such as that manufactured by the Tectum Corporation, Newark, Ohio.

It's not likely, chemical-grade producers point out, that fertilizer makers will use a product costing $80 a ton or thereabouts when cheaper grades of magnesite are available.

• Insulation. The 85 percent magnesia insulation business has suffered sharp setbacks over the past several years, owing primarily to the advent of more satisfactory materials for this purpose, including calcium silicate.

Business amounted to around 35,000 tons annually in 1954, dropped to 20,000 tons in 1957 and plummeted to 8,000 tons last year. It's likely that total business in 1960 won't exceed 5,000 tons.

Industry verdict: This end-use is a dead duck, although there'll always be a small tonnage for special uses.

• Rubber use includes catalyst and filler requirements for butyl, neoprene, "Hypalon" and "Viton" elastomers mainly, with specific accent on neoprene. In fact, as neoprene goes, so goes this market.

A question many are asking: What's going to happen when the Maydown, Ireland, plant of E. I. duPont de Nemours & Co. is operating at full tilt, thus cutting off export markets here with consequent loss of neoprene production here? Then, too, there's a plant going up in Japan.

Other end-uses of any volume include special refractories for glass and ceramic use, chemical processing of various kinds and uranium processing.

Special Refractory Use

Special refractory use of caustic-calcined magnesia is not expected to pass 1,000 tons this year. Uranium refining demand is expected to be only half that for 1959, owing to shutdowns in some plants.

Chemical and miscellaneous uses for magnesia are myriad. Sugar refining in the Hawaiian Islands and Puerto Rico is believed to take more than 500 tons a year, for instance.

If caustic-calcined chemical grades have many small uses and few large ones, the same can be said for technical and USP grades. Among uses for the refined

—*Continued on page 38*

MAGNESIUM OXIDE PRODUCERS' CAPACITIES

Industry Is Comprised of Four Major Categories

Producer	Location	Capacity (tons per year)	Source
REFRACTORY:			
Basic, Inc.	Gabbs, Nev.	120,000	Ore
Harbison-Walker	Ludington, Mich.	70,000	Brines
Kaiser	Moss Landing, Calif.	100,000	Seawater
Kaiser	Midland, Mich.	45,000	Brines
E. J. LaVino	Freeport, Tex.	50,000	Seawater
Michigan Chemical	Port St. Joe, Fla.	58,000	Seawater
Northwest Magnesite	Cape May, N. J.	110,000	Seawater
Northwest Magnesite	Chawelah, Wash.	180,000	Ore
H. K. Porter	Pascagoula, Miss.	60,000	Seawater
Standard Lime	Manistee, Mich.	35,000	Brines
Standard Slag	Gabbs, Nev.	35,000	Ore
Westvaco	Newark, Calif.	30,000	Seawater
Total Refractory Grades		893,000	
CAUSTIC-CALCINED:			
Basic, Inc.	Gabbs, Nev.	40,000	Ore
Dow	Freeport, Tex.	18,000	Seawater
Kaiser	Moss Landing, Calif.	10,000	Seawater
Michigan Chemical	Port St. Joe, Fla.	12,000	Seawater
Michigan Chemical	St. Louis, Mich.	15,000	Brines
Westvaco	Newark, Calif.	20,000	Seawater
Total Caustic-Calcined		115,000	
REFINED:			
Philip Carey	Plymouth Meeting, Pa.	10,000	Ore
International Minerals	Carlsbad, N. M.	6,000	Brines
Merck	S. San Francisco, Calif.	14,000	Seawater
Michigan Chemical	St. Louis, Mich.	2,000	Brines
Morton Chemical	Manistee, Mich.	4,000	Brines
Total Refined		36,000	
HYDROXIDE SLURRY:			
Dow	Midland, Mich. }	8,000	Brines
Dow	Ludington, Mich. }		
Kaiser	Moss Landing, Calif.	10,000	Seawater
Total Hydroxide Slurry		18,000	

Magnesite World Output: 1959

North America:	
US	594,307 tons
Other North America	285,693 tons
South America:	
Brazil	3,000 tons
Europe:	
Austria	1,324,106 tons
Bulgaria	165,350 tons
Greece	121,254 tons
Italy	7,562 tons
Poland	15,000 tons
Spain	55,000 tons
Yugoslavia	269,251 tons
Other Europe	1,841,877 tons
Asia:	
India	174,129 tons
Other Asia	1,155,871 tons
Africa:	
Kenya	3,145 tons
Tanganyika	118 tons
Union of So. Africa	58,383 tons
Oceania:	
Australia	71,650 tons
New Zealand	1,300 tons
World Total (Est.)	*6,150,000 tons

* Magnesite output of Canada, China, Mexico, North Korea, USSR included in estimated total. Source: Bureau of Mines.

It's estimated that 24,000 tons will go into composition board in 1960. The balance is expected to go into sorel cements, although this type of cement (used mainly for flooring) is losing out rapidly to other materials.

• Rayon. Consumption of caustic-calcined magnesia by the rayon industry is somewhat shrouded in mystery. Rayon acetate producers are reluctant to concede that they buy it, and even more reluctant to say what they do with it once they get it.

How Rayon Industry Uses Magnesia

However, it's believed that magnesia is used to regulate pH in the spinning bath at times when uniformity problems crop up. Some producers insist that use of magnesia is rare and limited to special occasions.

Nonetheless, an estimated 1,000 tons of caustic-calcined magnesia is earmarked for the rayon industry this year. The future for this end-use is not bright, however. Magnesia producers are certain that rayon tire cord will lose out to nylon in the long run—or perhaps even in the near term.

• Fertilizer use of caustic-calcined magnesia is not too easy to judge. Some sources believe up to 3,500 tons a year are consumed in fertilizer, of which perhaps 700-1,000 tons are caustic-calcined magnesia.

Heavy Chemicals

The change in business conditions is now thought unlikely to parallel that of the weather. Rather than a dramatic upswing come fall, trade sources, in the climate prevailing today, expect the scene to shift slowly, the market laboriously assuming a more resolute Autumn posture. The decline in stock prices, the tension caused by the presidential campaign, and the jittery international circus encamped in New York are all factors in this revised estimate of the situation. No one, it should be added, has so drastically changed his opinion as to rule out a fourth-quarter upturn.

If trade sources confined their remarks to the future last week, there was good reason for it. The present market was found to be about as nondescript as possible, neither slow enough for doldrums nor so seasonally recovered as to inspire the cheering section, but just moving sideways, as it were.

Price movement was lacking, but there were two changes on the books for October 1, appearing in the box amid this column.

Squeezed for months, sodium sulfate supplies remained adequate to just contracted demand, with nothing left over for new business and spot lots hard to come by, sources in that market reported.

October 1 Price Advances

Magnesium chloride, 25c. per lb.
Potassium bromate, 1½c. per lb.

Boxed in a slow market, mercury managed to hold on to its prevailing but rather low price tag. Silver held at its long-standing level against fair demand, while tin responded to reasonably active stainless steel operations by moving well at a steady price.

The American Paper and Pulp Association reported production for the week ended Sept. 17, at 92.4 percent of theoretical capacity, as compared with the revised figure of 72.6 percent for the previous week and 98.5 percent for the corresponding week of last year.

Acids

Boric—Prices, last advanced a year ago June, are currently judged steady. Business volume is rated fair, supply adequate.

Chromic—Chrome-plating demand, trade sources report, should soon start its seasonal upturn as output of new model automobiles gets underway in earnest.

Hydrochloric—Good business in food-processing and oil-treating outlets just about offsets the faltering start of the chemical trade's fourth quarter upturn and the acute doldrums of steel, sources in the trade report.

Hydrofluoric—Fluorinated solvent sales have started to pick up as the market gets its first sniff of fourth-quarter prospects. Undaunted by late summer drabness, the aluminum market charges ahead.

Nitric—Near absence of fertilizer business coupled with bad news from Pittsburgh (where output is running only a little better than 40 percent of capacity) gives the nitric market a wan look east of the Mississippi, trade contacts report.

Sulfuric—Along the East Coast, where a competitive situation prevails, prices remain settled at the normally discounted levels. Business volume is not what it should be for this time of the year; unfortunately, other consumers have failed to make up the deficit caused by lagging steel.

American Iron & Steel Institute estimates last week's steel output at 1,537,000 net tons, or 53.9 percent of capacity, which would be a minor advance over the previous week's actual total of 1,510,000 tons, or 53 percent of capacity.

Output a month ago was running at about the same level as now—1,547,000 tons. A year ago, when strike-straddled, output reached only 362,000 tons, the Institute recalls.

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	Sept. 25, 1959
106.81	106.81	106.81	103.56

For Current Prices see Page 10

Bases and Salts

Aluminum Sulfate—Paper makers are having a good year, and this is reflected in the alum market, where production and sales have held up fairly well while allied markets felt the pinch of a particularly slow summer.

As evidence, current estimates of the American Paper & Pulp association indicate that paper and board output during the first eight months of the year totaled 23.1 million tons, indicating an annual rate of 34.7 million. The eight-month figure was 2½ percent better than the comparable one for last year.

Copper Sulfate—Production of copper sulfate in the US totaled 5,300 tons in July, up 12 percent from June, and except for May, the highest since January, 1958, Mines Bureau reports. Sihpments rose 9 percent and totaled 200 tons higher than production; stocks fell 7 percent. Inventories, at the close, were sufficient for two weeks' requirements at the July rate of shipment.

Caustic Soda—Price books show no change for the fourth quarter, though the trade is thought to be somewhat less than satisfied with current levels, which are holdovers from a less inflationary era. An advance in chlorine at the start of the second quarter, trade sources note, was not reflected in listings for its coproduct.

Movement against contract is at a fair pace, reports from the market indicate. Supplies are in balance.

Chlorine—The market is marking time, holding to a drab late summer pace, trade sources expecting or at least hoping for a brisk upturn in the months ahead.

Lead Dioxide—Price levels are steady at 65c. a pound for 25-pound fiberboard boxes, 55c. for less than 2,000 pounds

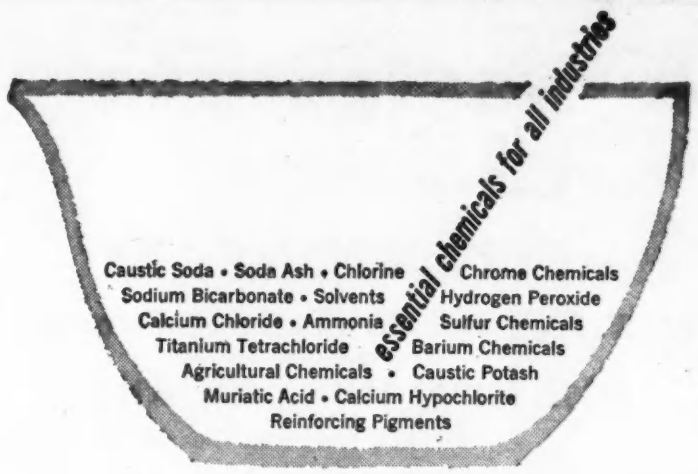
—*Continued on page 44*

Inorganic Chemicals Output: July

The following figures compiled by the Bureau of Census indicate production of industrially important inorganic chemicals, in tons:

	July	June
Aluminium chloride, anhyd	2,116	2,096
liq., cryst.	2,376	2,553
Aluminum sulfate, coml.	69,079	76,357
iron-free	4,460	4,410
Calcium carbide	(NA)	52,422
Carbon dioxide, liq., gas,	43,730	*44,075
solid	53,877	51,499
Chlorine gas	383,403	377,055
liquid	196,724	191,202
Hydrochloric acid	77,696	*76,808
Hydrofluoric acid	8,801	10,569
Hydrogen peroxide	2,001	2,474
Nitric acid	242,362	234,603
Phosphoric acid	159,055	171,230
Phosphorus, elemental	28,949	33,000
Phosphorus oxychloride	2,005	1,971
Phosphorus trichloride	1,971	1,997
Potash, caustic, liq.	7,948	*9,380
solid	1,936	2,000
Soda ash, syn., light	187,519	184,888
syn. dense	164,651	167,961
natural	(NA)	79,688
Soda, caustic, liquid	406,473	402,923
dry	36,977	37,922
Sodium bichromate and chromate	10,877	10,864
Sodium chlorate	7,986	*6,960
Sodium hydrosulfite	1,579	2,280
Sodium metal	9,523	9,357
Sodium phosphate, tribasic	3,763	4,746
Meta	5,325	5,381
Tetra	7,238	6,788
Acid pyro	1,459	1,190
Sodium silicate	23,562	34,627
Sodium sulfate, anhyd.	23,793	*24,535
Glaubers salt	7,351	*7,344
Salt cake, crude	58,502	*59,459
Sulfuric acid, gross	1,336,027	1,495,438

* Revised.
(NA) Not available.



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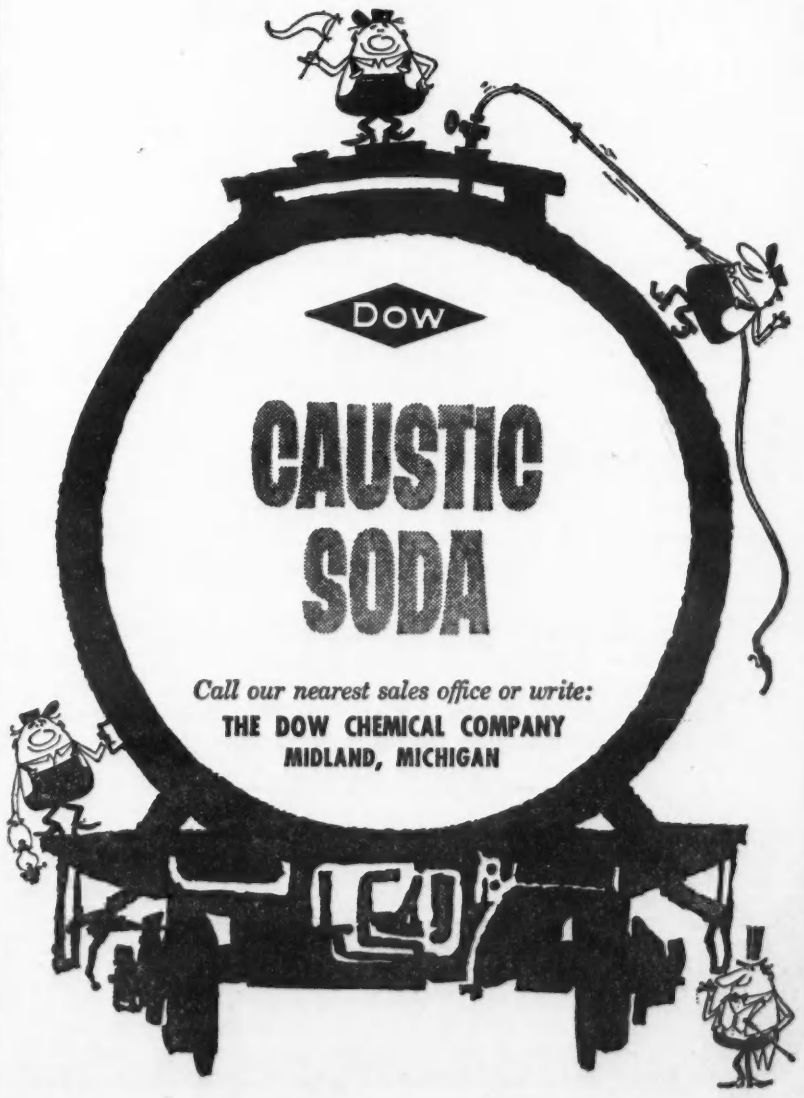

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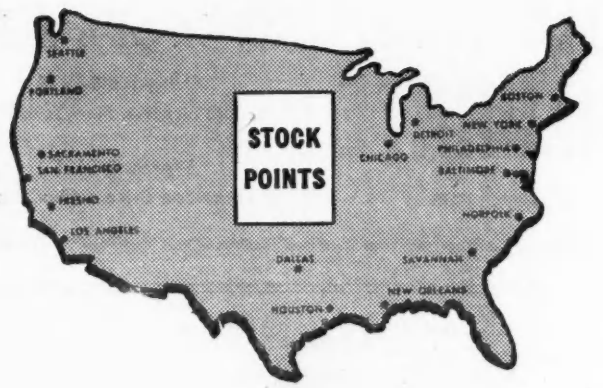

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Magnesium Oxide's Future Tied to Steel,

OPD 'Depth' Report on Magnesium Oxide

—Continued from page 36

grades, rayon leads the pack, according to the Bureau of Mines.

• Rayon. Use has grown steadily since 1954. In that year, 2,679 tons were consumed. This year, an estimated 4,200 tons will be used. As in the case of caustic-calcined magnesia, producers here are pessimistic about the future.

MAGNESIA REFINED GRADES
Technical, USP Reach Temporary Plateau

	*1960	1959
Rayon	4,200 tons	4,113 tons
Electrical	4,000 tons	3,387 tons
Refractories	3,400 tons	3,387 tons
Rubber	2,700 tons	2,661 tons
Cement	1,700 tons	1,694 tons
Medicinal	500 tons	*500 tons
Fertilizer	250 tons	242 tons
Uranium	200 tons	242 tons
Miscellaneous	9,050 tons	*7,968 tons
Total	26,000 tons	24,194 tons

*Estimates. Other figures based on Bureau of Mines totals.

• Rubber. About 2,700 tons are expected to go for elastomer use this year, depending on the fortunes of neoprene.

• Refractories. Technical and USP magnesia use in refractories is larger than might be surmised. A lot of material goes into specialty uses, such as molding of uranium compounds and delicate parts.

Further, it's believed that a lot of material represented in this category goes into the missile program, where high-temperature characteristics are a must.

• Medicinal. An estimated 500 tons will be used for medicinal purposes this year. Not much change is anticipated in the future.

• Uranium. Nothing but gloom is forecast here, particularly owing to plant shutdowns and expiring contracts among consumers in the uranium industry.

• Electrical. Some 4,000 tons of high-purity magnesia will probably go into electrical applications this year, particularly into heating elements for electric stoves and similar applications.

Intensive work in the electrical insulation field is progressing, and more tonnage is expected to go into cable insulation where light weight and high heat resistance is a desirable characteristic.

Other end-uses for technical and USP magnesias are multiple, but in most cases quite small.

It's clear to producers of chemical grades of magnesia that current volume uses for both caustic-calcined and technical and USP grades don't show much promise for the future.

In fact, one long-time producer of high quality magnesia, Keasbey & Mattison Company, threw in the sponge on its Ambler, Pa., plant at the close of 1958.

Those producers remaining in the business are devoting a great deal of time, effort and energy toward development of

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Whose Slackness Doesn't Hide Potential

new end-uses for chemical grades of magnesia.

What are they? Nobody's talking; everybody is working with a customer or a potential user in an effort to take up the slack caused by declines in existing uses.

Rumors are rife. There are frequent reports that so-and-so is building a 50,000-ton plant to satisfy such-and-such a new demand. This causes the heebie-jeebies among other producers, but so far, it's been all heat and no light.

Recent Developments in Chemicals

Recent developments for magnesia in the chemical field include removal of vanadium pentoxide from oils in refineries, use in the manufacture of nitric acid (magnesium carbonate in this instance) and in cold-cathode electronic tubes, developed by the Army, to include a few.

Whether or not someone breaks loose with a gigantic new end-use for chemical magnesia in the near future is moot at present. There is one area, however, in which rapid advances have been made, and in which demand could rise considerably over the next several years: pulping.

Right now there are six pulp mills in the United States using magnesium hydroxide slurry in pulping operations. Their total capacities exceed 700,000 tons of pulp annually. They are:

- Weyerhaeuser Timber Company, with mills at Longview and Cosmopolis, Wash.
- Brown Company, whose mill at Berlin, N.H., uses magnesia.
- Ketchikan Pulp Company, which has a 200,000-ton-a-year mill at Ketchikan, Alaska.
- Alaska Lumber & Pulp Company, with a 140,000-ton-a-year plant at Sitka, Alaska.
- Wausau Paper Mills, Inc., whose mill at Brokaw, Wis., uses magnesia.

MgO Imports by Type

	1959	1958
Crude Magnesite:		
India	....	11 tons
Netherlands	34 tons	....
Total	34 tons	11 tons
Caustic-Calcined:		
Austria	237 tons	66 tons
Greece	5 tons	....
India	2,930 tons	895 tons
Netherlands	661 tons	529 tons
United Kingdom	62 tons	24 tons
Yugoslavia	1,323 tons	882 tons
Total	5,258 tons	2,396 tons
Dead-Burnt:		
Austria	68,847 tons	41,251 tons
Canada	1,052 tons	814 tons
Germany, West	....	2,756 tons
Greece	20,254 tons	....
Italy	4,479 tons	....
Switzerland	11,244 tons	8,642 tons
Trieste	....	9,611 tons
United Kingdom	15,829 tons	....
Yugoslavia	28,597 tons	16,203 tons
Total	150,302 tons	79,277 tons

At present these installations are reported to use in the neighborhood of 6,000 tons of MgO per year.

Chief reason for the magnesia pulping process is the problem of stream pollution. An advantage of the process is that part of the spent liquor is combustible and the magnesia can be recovered.

What happens is that magnesia is added as a base to cooking liquor. The spent liquor is burnt in order to provide steam and power. The magnesia acts as a base which will burn and reproduce the basic

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OPD 'Depth' Report on Magnesium Oxide

oxide and sulfur dioxide necessary for recycle as acceptable cooking acid.

Proponents of the magnesia pulping process say it has nine advantages: 1. use of wood species not previously found suitable for sulfite pulping; 2. increased digester room capacity due to shorter cooking time.

3. Increased pulp yield; 4. increased pulp strength; 5. decreased dirt content of pulp; 6. elimination of digester heater and piping sealing.

7. Minimization of nuisance of sulfur dioxide odors, particularly in the event of leaks, blown gaskets, etc., in the blow pit room; 8. use of hot water for acid making with elimination of the need for refrigeration, and 9. simpler storage requirements of acid at elevated temperatures due to reduced pressure at given temperature.

However, on the debit side, it must be noted that the Howard Smith Paper Company, which worked on the magnesia pulping process for years at its Cornwall, Ont., plant, and owns several basic patents, is not using the process.

MgO Reprints Available Soon

OPD's special "depth" report on magnesium oxide is being reprinted and will be available shortly. Copies may be obtained at 35 cents each (discounts on quantities of a hundred) from OIL PAINT AND DRUG REPORTER's Reprint Departmenet, 30 Church Street, New York 7.

Further, some of the producers who use the method freely admit that they do so only because of strict pollution laws—and that if they had their way they would prefer the ordinary sulfite process.

Chances are, however, that with the nation becoming more pollution-conscious, and with the magnesia process the only feasible means of rigid pollution control at anywhere near reasonable cost, this method will be incorporated into new mills here.

Present plans are for a magnesia-type pulping plant to go up in Hyltebruks, Sweden. Rumors are flying concerning possible future developments among domestic paper mills, with no plans firm, apparently, at present.

Meanwhile, the industry competes keenly for dribs and drabs of present business—and hopes it will find that one end-use which will hit the ball out of the park.

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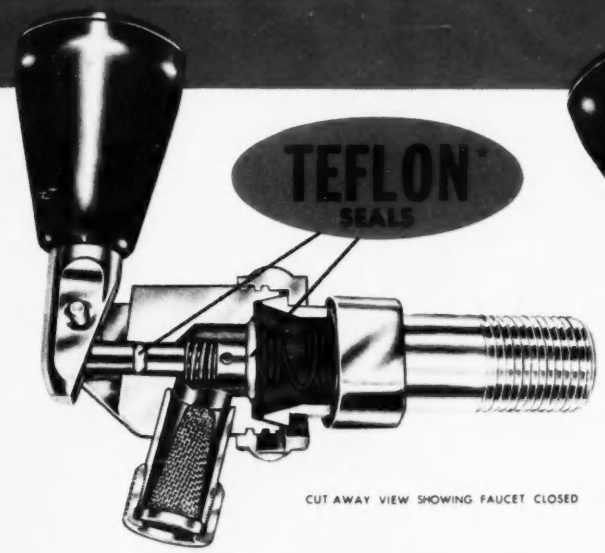

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Chesebrough Sets Acquisition Of Another Cosmetics Maker

Chesebrough-Pond's, Inc., has reached an agreement in principle to buy Northam Warren Corporation and its affiliates for an undisclosed amount of cash. Effective date of the merger would be December 31, 1960.

Sales of Chesebrough came to $66 million last year and earnings exceeded $4 million. Northam Warren, which produces manicure, deodorant and cutlery products, had a net income last year of $1,103,000.

Chesebrough intends to operate Northam as a separate division under its present policies and personnel.

Chemical Shipping

—*Continued from page 3*

for fruits and vegetables, wood, and automobiles.

The plan also calls for increases on a number of specific commodities, and for higher rates on piggy-back shipments and certain special services.

Members of the traffic committee of the National Plant Food Institute voted unanimously at a recent meeting in Washington to oppose the increase and to petition the ICC to hold hearings so that the industry could present its facts. It is estimated that the rate increases on fertilizer materials would cost the industry about $5 million more annually.

Grace Man Heads Subcommittee

Robert T. Smith, director of traffic for Davison Chemical Division of W. R. Grace & Co., Baltimore, Md., was named to head a special subcommittee to organize and present testimony at ICC hearings. The commission plans to hear arguments October 18.

The impact of the increase on the paint industry probably will be felt less than in some of the other branches of the chemical industry by reason of the fact that the paint industry was the recipient of a major move by the railroads last year to recapture traffic lost to the motor carriers by an experiment in rate reductions.

A test case won by the eastern railroads before the ICC last year allowed them to put "incentive" rates into effect on paint shipments in the east which were less than those being charged by motor carriers.

The plan is reportd to have worked successfully for both the railroads and the industry.

Collapsible Containers Pose Problem

The matter of collapsible containers that affects the chemical industry is an issue that has developed during the past two years between groups of motor carriers and tank truck carriers over the use to be allowed of these so-called "freight bags." The question is whether these containers are to be considered special equipment or not.

Intentions of the ICC to step up enforcement actions against questionable transportation practices were disclosed to the National Petroleum Association at its fifty-eighth annual meeting in Atlantic City, N. J., last fortnight by ICC Commissioner Laurence K. Walrath. The program will go into effect within two years.

Mr. Walrath had in mind the trend toward do-it-yourself transportation, which he termed "gray area" operations of doubtful legality. He said that stepped up enforcement must be accompanied, however, by greater effort upon the part of the carriers to reduce their unit costs.

Sandalwood Is Wary

—*Continued from page 4*

been proved through tests in functional products such as soaps, detergents, cosmetic preparations and aerosols.

Observers in the essential oils market regard this development as a major one. They note that most of the sandalwood oil used in this country comes from Mysore (a state in India) where the government has a monopoly on the wood.

This monopoly could be a factor in the currently high price, they feel. If so, existence of a competitive material would act as a much-needed lever on prices.

FDA Starts Tightening Up

—*Continued from page 4*

would require samples to be filed prior to clearance of the application in addition to those finished packages to be submitted after clearance.

Samples to be submitted with new drug applications are to consist of four identical, separately packaged sub-divisions each containing at least three times the amount required to permit laboratory examination for compliance with all of the specifications of the article in the application.

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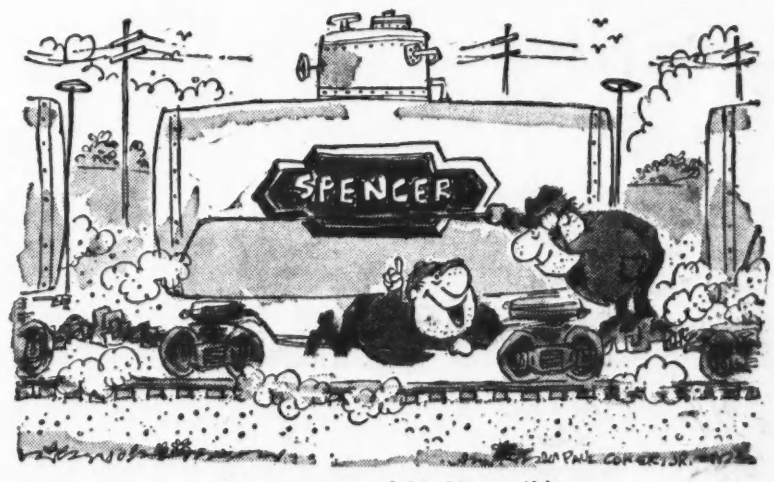

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Heavy Chemicals

—Continued from page 37

packed in 200-pound fiber drums and 50c. for quantities of more than 2,000 pounds, reflecting the advances of September 1.

Magnesium Chloride—Contract prices will be moved up 25c. to 52c. a hundredweight, October 1, depending upon grade and quantity. The change is already in effect on spot.

Potassium Bromate—The price boosts already effective on spot will hit contracts October 1. New quotations are 49c. a pound for carloads, 51½c. for less than carloads of 1,000 pounds or more, and 56½c. for 200 to 800 pound shipments. For 25-pound drums, quotations are 53½c. for 1,000 pounds or more, 58½c. for 200 to 975 pounds, and 63½c. for smaller shipments.

Nonferrous Metals

Aluminum—Crude aluminum exports from the US in July totaled 37.2 million pounds, as against 49.1 million in June, Business & Defense Services Administration reports. For the first seven months of the year, they stand at 360.4 million pounds, a whopping upswing from 81 million in the same period of last year.

Export of scrap in July, BDSA notes, were 12.5 million pounds, about 6 percent under June. The seven-months total is 92.3 million, as against 27.2 million a year earlier. Imports of crude in July were 26.3 million pounds, down from 30 million pounds in June.

Chromium—Consumption of chromite in July declined 13 percent from June, according to the Bureau of Mines. Metallurgical use gained slightly, while refractory and chemical intake dropped 37 and 4 percent, respectively, Mines notes.

In turning out 15,243 short tons of chromium ferroalloys and metal in July, the industry consumed 44,928 short tons of chromite; 707 tons went directly into steel.

Chemical production amounted to 10,757 short tons (sodium bichromate equivalence, accounting for 14,388 tons of chromite consumption.

Mercury—Prices were unchanged at $209 to $212 a flask, prompt, large lots.

Silver—Prices held at 91⅜c. a troy ounce, spot.

Tin—Activity in the stainless steel trade was brisk enough to keep prices unchanged at $1.02 a pound, spot, Friday.

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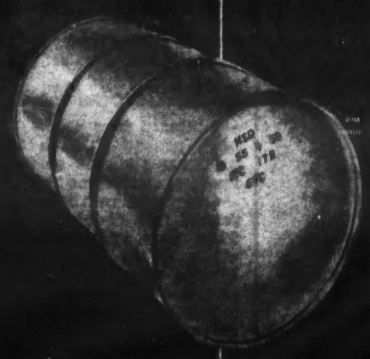

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Agricultural Chemicals

The trend toward higher analysis phosphoric acid fertilizers, combined with the unusually wet Spring throughout the country cut down production and consumption of superphosphates. Reports from the trade and surveys made by the Bureau of Census back up this contention. The Bureau of Census reports that in the last six months of the 1960 fertilizer year, production of normal and enriched superphosphate was down 5 percent and shipments down 2 percent compared to the corresponding half of the fertilizer year in 1959. While the output of concentrated jumped 12 percent, shipments slipped 1 percent. The biggest gains occured in other types of phosphatic fertilizers where production was up by 27 percent, and shipments increased by 20 percent compared to the same period last year.

Superphosphate producers look for a high carryover of stocks in the next six months but anticipate a higher rate of shipments to make up for the poor showing earlier in the year.

Triple superphosphate producers report an excellent sales record for the past season, and feel that the best year in their history might be in the making. The trend toward the higher analysis phosphoric acid fertilizers, while cutting into superphosphate demand, has added to their sales performance. The basis for the trend is the result of the freight cost savings that accrue to the consumer on the percentage of phosphoric per shipment.

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	Sept. 25, 1959
109.97	109.97	109.97	110.14

For Current Prices see page 10

October 1 Price Advances

Ammonia, anhydrous, $8 per ton
Ammonium nitrate, $3 per ton
Nitrogen solutions, direct application, $6 per ton
Potash sulfate, 5c. per unit-ton

In line with this trend toward higher analysis fertilizers, a leading producer has announced plans to build a $1.5 million phosphoric acid plant. The plant is scheduled for completion by the end of April, 1961, and will have a capacity of 50,000 tons a year.

Production, according to the company, will go to fertilizer manufacture in the Mid-West, especially in the states of Michigan, Indiana, Illinois, Wisconsin, Minnesota, Iowa and Ohio.

Animal and Plant Foods

The total quantity of fertilizer consumed in the year ended June 30, 1959, was 25,312,672 tons, reports the Fertilizer Investigations Research Branch of the US Department of Agriculture. The total was divided into 24,089,468 tons of products containing one or more of the primary nutrients and 1,223,204 tons of secondary and trace nutrients materials.

Consumption of fertilizers containing primary nutrients was 11.7 percent more than in the fertilizer year 1957-58. The quantity of the secondary and trace nutrients materials was 30.2 percent more than the amount consumed in the preceding year.

In 1958-59 mixtures comprised 63.5 percent of the total tonnage of fertilizers consumed and amounted to 16,069,027 tons, an increase of 1,716,004 tons (12.0 percent) from the 14,353,023 tons in the previous year. This is the first time since 1952-53 that mixtures have shown a tonnage increase and the 1958-59 total establishes a new peak in consumption.

N-P-K mixtures represented 90.1 percent of the total tonnage of mixtures, while the other types (N-P,P-K,N-K) accounted for 2.6 percent, 5.5 percent and 1.8 percent, respectively. The N-P-K type comprised more than 80 percent of the tonnage of mixtures in all regions reported except the Mountain and the Pacific areas.

The 5-10-10 grade and the 1:2:2 plant-nutrient ration were consumed in larger tonnage than any other grade and ratio for both the 1957-58 and 1958-59 fertilizer years. The total tonnage of all grades of mixtures reported in the 10 nutrient ratios listed accounted for 75.2 percent of the total use of mixtures by grade in the US.

The national average of primary plant nutrient for 1958-59 was 6.22 percent N, 12.54 percent of available P_2O_5 and 11.91 percent of K_2O, or a total of 30.67 percent. Compared to the corresponding averages of 1957-59, the increase was highest for N (4.36 percent), while that for available P_2O_5 was only 0.08 percent, and for K_2O, 1.53 percent.

The investigators report that the percentages reflect the trend toward increased concentration of primary nutrients in mixtures used throughout the US. The high rate for nitrogen resulted from the substantial increase in average nitrogen contents in 45 areas and decreases in only 5. The low rate of available P_2O_5 was the result of decreases in 27 areas offsetting increases in 22 areas. The rate for K_2O increased in 29 areas and decreased in 22.

Ammonia—For the first time in almost two years the price of anhydrous ammonia is scheduled to be uniform across the country. On the basis of several previously announced listings the price schedule for anhydrous ammonia will be $92 per ton on both Coasts, effective October 1.

In the past, competitive pricing policies resulted in prices that were about $20 to $25 per ton lower than its East Coast equivalent. Over the last four or five months, several West Coast-based producers have been strengthening their listings in an effort to correct what one producer called an unrealistically low price in California.

In another announcement, the price for anhydrous ammonia used in metal treating and refrigeration will be raised from the current $86.50 to $94.50 on October 1, by one producer. The new price is reported to be in line with announcements made by other producers earlier.

Animal Proteins—While quotations for fishmeal and scrap remained unchanged for the week, firmer undertone continued to develop. The basis of growing strength of the market for the meal and scrap is reported to rest on the firmer conditions forming in Peru, and the effects of storm damage on buyers thinking. The combination of events is reported to have increased inquiry noticeable, but without any change in prices.

The storm damage is reported to be located at only two plants. One plant in North Carolina is reported to be knocked out indefinitely while another in New Jersey suffered flooding conditions which caused a temporary shutdown of operations. While these isolated cases of the hurricane's effect did not result in a ripple on the supply situation, the affect on buyer's thinking is believed to have spurred additional interest.

Superphosphate & Other Phosphatic Fertilizer Production

Following are data compiled by the Bureau of Census indicating superphosphates and other phosphatic fertilizer produced and shipped in the United States, January, 1960 through July, 1960. Included are percentage changes. All material is 100 percent P_2O_5 in short tons.

	1960 *Season In Short Tons* 100 Percent P_2O_5		1960 *Season Percentage Change from 1959*	
	Production	*Shipments*	*Production*	*Shipments*
Normal and enriched	810,041	424,350	— 5	— 2
Concentrated	585,116	565,760	+12	— 1
Other phosphatic fertilizers	231,685	213,679	+27	+20
Total	1,626,842	1,203,789	+ 5	+17

Aliphatic Organics

Lower prices have been posted for two chemicals that are today midway on the road to commercial importance. At 45 cents a pound in tankcars, isobutyronitrile is down 3½ cents, while n-butyronitrile, at 54 cents a pound, is down 15½ cents. Isobutyronitrile has been available for about two years. Its major application is the manufacture of insecticides, among which "Diazinon," the cockroach killer, comes immediately to mind. A still more recent market entry, n-butyronitrile is used mainly in the field of poultry medicines.

While relatively young, both chemicals have been shipped in tankcar quantities for some time. They are available from only one firm, although a second has the requisite raw materials and plant equipment to produce them and may one day decide to do so.

With an additional 100 million pounds of acetone available during the next twelve months as well as greater quantities of byproduct material, there's likely to be some elbowing among the crowd in the marketplace. Not likely, however, is a price reduction below the lower levels posted in mid-July. Operating costs and the fact that acetone is sold on a delivered basis, meaning producers absorb all increases in rate freights, will make it necessary to strictly maintain the current schedule, some sources close to the business point out.

A major chemical firm expects to have its new glycerine plant on stream within a few weeks. A second may be in the business in 1961. Almost from its initial disclosure of plans, this latter firm's venture into glycerine has been surrounded with speculation. Not surprisingly, this has yet to cease. Suggested, for example, is that the firm is not going the "epi" route and, in fact, that glycerine plays a minor role to propylene oxide in the firm's $30 million expansion program.

Rumored also is that another chemical firm is thinking about manufacturing glycerine via a fermentation process. It must be emphasized that this report is not particularly new and may very well be from way out beyond the blue blue sky.

Acetone—Barring a price decline, acetone prices probably will remain at current levels indefinitely. Prior to September 15, cut-off date for informing customers of fourth quarter increases, some few people had expected producers to reestablish the schedule in effect prior to the sudden ½c. a pound reduction posted in mid-June. But at the same time, sources close to the business rejected the idea as "wishful thinking, that's all."

Likely to rule out a January 1 advance is the additional production capacity that faces the industry. Last fortnight, a new producer brought on stream a 100-million-pound-per-year plant. Formerly a large open-market buyer, the firm is now on its way to becoming a decided market factor. Such, at least, is the view of several interested as well as disinterested observers who indicate they're watching for some crowding in the marketplace.

Lessening the competitor factor a bit are greater production and sales. Exceeding forecasts, output of acetone last year was 736,209,000 pounds, compared with 610,600,000 in 1958, while sales were 441,744,000 pounds, against 278,600,000.

While it is doubtlessly true that a larger quantity of by-product or "cumene" acetone was available last year, the principal factor leading to greater production and sales, a trade source says, was the increasing popularity of acetone as a solvent for acrylic lacquers and the increasing acceptance, of acrylic lacquers, in turn, by the automobile producers.

The auto makers more than likely bought heavily in the latter part of '59 in anticipation of what they saw as a big car-year. Then, as their forecasts began to pan out, continued to purchase boldly.

Demand for acetone showed considerable improvement in August, compared with the July level, some sources note. September, they add, looks like a repeat performance. Forecasting the fourth quarter just isn't being done, publicly.

Exports of acetone in July were 732,355 pounds, valued at $57,512. The largest buyer by far was Mexico, which took 556,853 pounds at $39,177. Also purchasing were: Colombia 113,280 pounds at $10,933; Philippine Republic 35,800 pounds at $3,938; Venezuela 19,400 pounds at $2,344; Ecuador 7,000 pounds at $860; and France 22 pounds at $260.

Acrolein—The debut of a new acrolein producer is imminent. According to a spokesman for the firm, it's new plant, now in the middle-stages of start-up, will be on stream in a matter of weeks, not months. The intricacies and complexities of what is described as a "unique process" are blamed for the delay.

Acrolein prices were reduced substantially by a firm already in the business in mid-August. Action set the schedule at 31c. a pound for tankcars, 36c. a pound for drum carloads, and 36¾c. a pound for lesser quantities on an f.o.b. works basis.

When and if acrolein achieves the market that the development men predict, still lower prices are likely. Seen is the day acrolein will rank with ethylene oxide as a basic chemical raw material.

Butyl Acetate—Exports of butyl acetate, at 1,679,209 pounds in June, dropped to 179,622 in July. Valued at $30,462, this material went mainly to: Taiwan 48,000 pounds at $8,938; Mexico 38,572 pounds at $5,328; and Columbia 33,200 pounds at $5,445. Other buyers included the Korean Republic, Philippine Republic, Peru and Brazil.

The domestic market has no particular features. Against adequate supplies, demand is moderate to good; prices, long-established, are unchanged.

Butyl Alcohol—July saw exports drop to 1,568,509 pounds from 11,323,458 pounds the month previous. No overall loss in foreign requirements, a major market for this chemical, is indicated, however. July of last year, exports were only slightly higher at 1,638,810 pounds.

Valued at $198,430, the July '60 shipment was divided between Italy and France. Italy got 1,298,522 pounds at $155,822; France 66,086 pounds at $10,574.

Formaldehyde—A major market for formaldehyde, plywood, appears to be firming up. Or, at least a leading producer last week made a forcing move in that direction by announcing a billing price of $68 per thousand square feet for quarter-inch fir plywood, a key grade used in building.

Earlier this year, the price was down to a record low of $60 per thousand feet and at this level, trade observers felt that manufacturers were no more than breaking even. Some formaldehyde suppliers, in fact, felt that some of the smaller people in the business might even be forced

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	Sept. 25, 1959
131.20	131.20	132.09	130.47

For Current Prices see Page 10

Aliphatics Foreign Trade: July

Exports of selected industrial aliphatic organics for the months of June and July, 1960, as reported by the Bureau of Census, were as follows:

		July	June
Acetone	lbs.	732,355	896,335
Alcohols, including, glycols, n.e.c.	lbs.	12,319,400	13,354,156
Butyl acetate	lbs.	179,622	1,679,209
Butyl alcohol	lbs.	1,568,509	11,323,458
Ethyl alcohol and methylated spirits	gals.	11,452	3,101,190
Ethylene glycol	lbs.	10,101,932	9,575,613
Formaldehyde, 40 percent solution	lbs.	263,848	648,750
Glycerine, crude and refined	lbs.	3,684,751	1,216,342
Methyl alcohol	gals.	2,364,844	1,510,957
Propyl alcohol	lbs.	312,611	581,187

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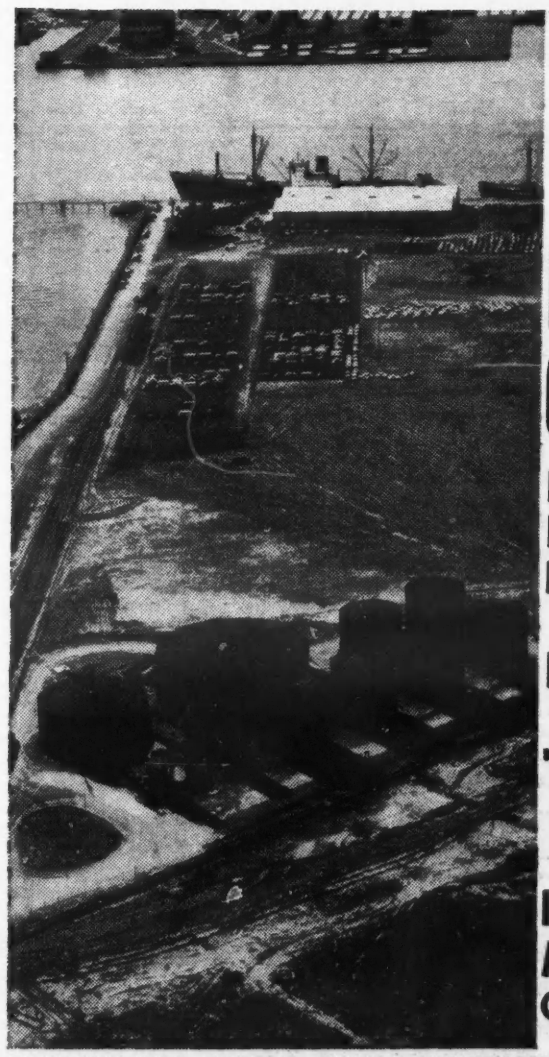

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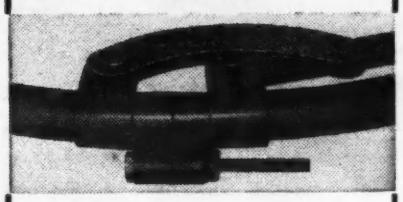

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Aliphatic Organics

to quit. Consequently, they welcomed last week's attempt to stabilize the market.

A new trend in this end of the business is that some plywood makers have decided to produce their own bonding resins or adhesives in which formaldehyde is used.

While more information is expected momentarily, indications are that "Delrin" acetal resin is going to spur formaldehyde consumption.

Debuted about eighteen months ago, the formaldehyde polymer is already in wide usage in automotive parts. The instrument cluster on Plymouth's "Valiant" is molded of "Delrin" and reports find both Ford and Cadillac using the thermoplastic in the housing for the windshield washer pump and sundry other uses.

Lighter and cheaper—it was recently reduced to 80 cents a pound—"Delrin" is replacing metals and to a much smaller extent, nylon, in several of the 1961-model cars. There is also a little overlap with plastics in some applications.

Exports of formaldehyde in July totaled 263,848 pounds and were valued at $21,552, according to the Census bureau. Buying from the US were Canada (241,000 pounds), Columbia (22,080) and Mexico (768).

July a year ago, exports were 224,620 pounds, valued at $20,517.

Glycerine—With no further weakening in domestic crude glycerine prices last week, listings remained at the earlier levels, 18c. to 18¼c. a pound for saponification and 20c. a pound for soaplye.

Still relatvely high, crude is going mostly to direct users but should prices drop lower, refiners, perhaps, will get a bit more interested. As it is, they suffer through the fluctuations of crude without being able to adjust schedules for refined. The reason being, of course, that they've got to meet stiff competition from the synthetic material.

Additional synthetic glycerine capacity is expected to come on stream within the next few weeks. Still more is expected in 1961, if a major chemical producer follows plans announced to the trade earlier. That it is proceeding as scheduled is not known for sure at this time. There is some speculation, naturally, that it may have revised its plans. Suggested, for example, is that the firm is not going the "epi" route. Also suggested is that glycerine is very much secondary to propylene oxide, in the firm's $30 million expansion program.

A rumor from way out in left field is that still another firm is weighing the pros and cons of glycerine production, based on a new fermentation process. It would be an interesting development should it come to pass.

Against imports of 1,687,097 pounds, exports of crude and refined glycerine in July amounted to 3,684,751 pounds, valued at $985,235. Buying from the US that month were Canada (890,132 pounds at $197,162) and The Netherlands (2,373,902 pounds at $663,323).

Isobutyronitrile — Complete schedules on isobutyronitrile and n-butyronitrile, discussed earlier in this report, are as follows:

Isobutyronitrile is priced at 45c. a pound in tankcars, 47½c. a pound in carloads of drums, and 48½c. a pound in smaller quantities.

N-butyronitrile is priced at 54c. a pound in tankcars, 56½c. a pound in carloads of drums, and 57½c. a pound in smaller quantities.

Methanol — Methanol exports rose to 2,364,844 gallons in July from 1,510,957 in June, one of the few increases reported by the Census bureau.

July shipments, valued at $465,953, went to: West Germany 1,008,112 gallons at $180,094; United Kingdom 506,787 gallons at $78,552; Australia 425,401 gallons at $76,572; Netherlands 194,823 gallons at $42,1885; and Mexico 115,820 gallons at $30,556.

Trichloroacetic Acid—Prices are going up 2 cents a pound across the board for technical trichloroacetic acid October 1. Change has already been made on spot.

New schedule: carload or truckload of 300-pound drums, 52c. a pound; less carload or truckload of 300-pound drums, 54c. a pound, 100-pound drum 57c. a pound. All prices are f.o.b. works.

Standard Toch Unifying Its Operations in the East

Standard Toch Chemicals Company will close its plants in Staten Island, N. Y.; Linden, N. J.; Brooklyn, N. Y., and East Rutherford, N. J. in the near future.

This will make it possible to consolidate eastern operations in the recently purchased Congoleum-Nairn plant in Kearny, N. J. The firm's fifth plant, Standard Toch Chemicals, Inc., of Chicago, will continue its operations in the mid-western area.

Ultramarine Blue: Comeback

—Continued from page 4

over 3 million pounds last year. While imports were rising 25 percent in 1958 and 1959, he added, the company's domestic sales rose only 1.3 percent.

He said profits on ultramarine blue disappeared entirely in the first quarter of this year.

Obituaries

Mark M. Biddison

Mark M. Biddison, president of the General Chemical Division of Allied Chemical Corporation from 1952 to 1955, died September 18 in Sarasota, Fla. He was sixty-eight years old.

Mr. Biddison, whose career with General Chemical spanned thirty-nine years, started with the division's sales department in 1918. He rose to become manager of the Cleveland, Ohio, office and later was named sales head of the division.

From 1934 on Mr. Biddison was successively assistant general manager and general manager. He became a vice-president in 1947 and was named executive vice-president of the division in 1951.

William F. Fischer

William F. Fischer, retired vice-president and sales manager of Magnus, Mabee, & Reynard, Inc., New York, died September 15 on Long Island, N. Y. He was sixty-nine years old.

Mr. Fischer started at MM&R in 1907 as an office boy. He retired several years ago.

Dr. Ernest W. Goodpasture, pioneer in the development of mass-produced vaccines, died September 21 in Nashville, Tenn. He was seventy-three years old.

William P. McNulty, retired secretary of Norwich Chemical Company, died September 20 in Norwich, N.Y. He was eighty-three years old.

Dr. Julius Molnar, a pathologist and director of Stuyvesant-Polyclinic Laboratory and Molnar Laboratories, died September 18 in New York. He was sixty-three years old.

Leslie S. Beggs, former president of the Flavoring Extract Manufacturers' Association and retired president of the Styron-Beggs Company, Newark, Ohio, died September 12. He was sixty-six years old.

Monsanto Phenol Plant

—Continued from page 3

boost Monsanto's total phenol capacity to well over 200 million pounds a year.

The new plant will turn out phenol via the cumene oxidation process. Monsanto uses the sulfonation method in its other two units.

Reason for the switch: Monsanto is able to make efficient use of the acetone, which is a by-product of the cumene process (0.6 pound of acteone is turned out for every pound of phenol).

Why is Monsanto expanding in phenol? Primarily to satisfy increased captive needs for the material.

Robert M. Morris, Monsanto vice-president and general manager of its organic chemicals division, cites these examples:

- Doubling of bisphenol-A capacity in each of the last three years.
- Newly-expanded cyclohexanol facilities are now on stream.
- Doubling of capacity is planned for "Santophen 1," a phenolic germicide.
- Projected expansions for 2,4-D weed killer and aspirin. Monsanto's aspirin facilities—already regarded as the world's largest bulk installation—is being enlarged by 25 percent.

OPD Reports From Europe

Unilever Plight Points Up Danger

—Continued from page 5

that the problem ingredient may have been passed to other brands by accidental use of the same equipment.

Television programs were interrupted in Holland to warn people against using any of the margarine brands except "Diana" —which is Unilever's latest in the Dutch market.

Scientists of the Dutch government and Unilever have been frantically trying to determine if the additive is in fact the cause of the skin trouble. A committee of the Royal Netherlands Medical Society is collecting information from local doctors who have treated victims, reckoned now to number around 100,000 people.

A joint Dutch-German committee is studying a somewhat similar outbreak in Germany in 1958 which was attributed to a virus isolated from a few patients.

The Dutch company has volunteered compensation to victims before the scientific verdict is in. Unilever spokesmen are careful to point out that the connection between the new margarine and the skin complaint has not been established scientifically. Indications, though, are generally believed to point to the new margarine.

The "anti-sputtering" additive is evidently part of an additional emulsifier mixed with the margarine to make it more like local butter and reduce sputtering into frying pans. Unilever maintains that this emulsifier is the only difference between the "Planta" under investigation and an earlier version of the brand never involved in such difficulties.

Unilever has not disclosed the chemical identity of the suspected additive, and there has been some confusion as to whether the "anti-sputtering" characteristic is a separate additive or part of the new emulsifying ingredient.

Some Cases in Germany

In Holland, health authorities note that the skin complaint in some cases has been delayed by ten days after consumption of the margarine. Some cases have been reported from Germany, since some Germans living close to the Dutch frontier buy certain groceries in Holland where they are cheaper.

It is reported from Holland and Germany that sizable legal claims have been filed against the company, but no totals have been disclosed. Official action in the case awaits the outcome of all the scientific tests now under way.

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Trade Name Chemicals & Specialties

Use of the term "synthetic wax" involves some overlapping among the various component groups. Synthesized compounds, such as **"Carbowax,"** hydrogenated waxes, halogenated hydrocarbons and Fischer-Tropsch waxes are all considered synthetic. Microcrystalline and paraffin waxes which undergo additional chemical treatment are often thought of as being among the synthetics. In addition to these, there are a number of important natural animal and vegetable waxes which are, for the most part, imported. Use of the "synthetics" is limited, but growth during the past decade has been steady.

Floor polishes have long formed a major outlet for waxes. The common practice today in producing a buffable floor polish preparation is to incorporate a variety of ingredients to obtain the desired properties of each. In recent years, for example, emulsion polymers, based on styrene and acrylate monomers, have found widespread acceptance in the industry for incorporation in floor polish preparations. Such a formulation might also utilize natural and synthetic wax emulsions in varying concentrations.

On the retail level "shelf" goods, such as a housewife might buy in a supermarket, and "institutional" waxes, sold to schools, hospitals and government installations, form two basic divisions of the floor wax market. Paste waxes are favored in the latter outlet as they have a relatively high wax content and are buffable. They work well in waxing machines which are used to put down waxes over a large area. Liquid waxes which go into the home form the bulk of the market and a substantial amount of repeat business is obtained.

Other major outlets for waxes in general include paper coating, crayons and pencils, candles, pharmaceuticals, paint materials, and in rubber and leather industries.

Frank B. Ross Co., Inc. is marketing a new high melting synthetic wax which the company reports can be used alone, in blends, or in resins and plastics to improve their properties. Composition of the new wax is not disclosed, but the manufacturer points out that it is similar to Carnauba in that it has the property of releasing solvent from wax pastes. It is compatible with paraffin and microcrystalline waxes, vegetable waxes, fats, esters, hydrogenated castor oil and rosin. Small amounts of the wax raises melting points in blends considerably.

Beacon Chemical Industries, Inc., reports development of a new group of surface active agents. Tradenamed **"Phosphenols,"** the products are long chain modified organic polyphosphates which are suggested for use as general purpose cleaners and surfactants, industrial cleaning compounds, aircraft and machinery cleaners stabilizers in emulsion and latex polymers and as antistatic and scouring agents in the textile industry. The materials are alkali-soluble and withstand hydrolysis in boiling dilute caustic soda. They show a substantial degree of chelating ability toward heavy metals.

WHAT'S REPORTED ON HERE

Though coverage in the Trade Name Chemicals & Specialties market report encompasses twenty classes of chemicals, only a few of them are mentioned in this issue. Here's the entire list:

Adhesives, antibacterials and fungicides, antifoaming agents, antioxidants, antistatic agents, blowing agents, catalysts and accelerators, chelating agents, chemically processed oils, emulsions and latexes, enzymes, fatty acid derivatives, feed supplements, filtering materials, ion exchange resins, surfactants, synthetic waxes, textile chemicals, thickening and suspending agents, and ultraviolet absorbers.

If you have suggestions for any additional materials that might be included in this section write OIL, PAINT AND DRUG REPORTER'S Technical Editor, 30 Church street, New York 7.

Synthetic Waxes

Some overlapping occurs in the use of the term "synthetic wax." Rigorously applied, it may be taken to mean only synthesized compounds such as the **"Carbowaxes"** of Union Carbide Chemicals Company. In addition, chlorinated naphthalenes (**"Halowax"**), hydrogenated castor oil (**"Opalwax"**), modified fatty acid esters (**"Acrawax"**), or synthetic hydrocarbons derived from Fischer-Tropsch reaction (**"Duroxons"**), are considered synthetic waxes.

Microcrystalline or paraffin waxes, although manufactured from a natural source, when oxidized or otherwise specially processed, are often thought of as being among the synthetics.

The status of microcrystalline and paraffin waxes under the food additives law was defined earlier this year when the federal government granted a one-year extension for sale and use of these materials to March of next year while further testing is being carried out. The additional testing is being conducted for the industry by the American Petroleum Institute.

Earlier this year Western Petrochemical came in with a wax-decolorizing plant at Chanute, Kan., designed to turn out 200-bbls. per day of water-white microcrystalline waxes to meet continued increases in demand in the packaging industry. The unit employs a unique continuous process, lowers operating costs and results in an improved product. Continuous recycling of absorbent completes decolorization and prevents a carry-over that often occurs near the end of batch cycles.

Although synthetics of the first-mentioned group form a relatively small part of the overall wax market, they have come into increased use during the past decade. This is especially so in applications where they can be substituted for the natural vegetable or animal waxes which are imported and are thus subject to fluctuations in availability and price.

Frank B. Ross Co., Inc., is marketing a new high melting synthetic wax (**"Ross Wax 160"**), which the company says can be used alone or in combination with other waxes or in resins and plastics to improve their properties. Composition of the new wax is not disclosed, but the company reports the product is similar to Carnauba and has the property of releasing solvent from wax pastes thus quickening drying time. Used in blends, the wax will raise melting points considerably. The material is insoluble in all solvents at ordinary temperatures. Suggested applications are in paper coating, water and grease proofing and as a dielectric coating. Ross also markets a full line of vegetable waxes, wax-resin blends and maintains facilities for manufacturing specialty wax compounds to order.

Eastman Chemical Products markets the **"Epolene"** polyethylene waxes. **"Epolene N"** combines the properties of polyethylene resins with the advantage of low molecular weight, 2,500 to 3,000, which means low viscosity and low melting point. A low viscosity range makes it possible to formulate **"Epolenes"** into finished products of constant and predictable consistency.

"Epolene E" is designed for water emulsion polishes, although uses are not necessarily confined to this application, the company reports. The wax is readily emulsifiable by standard procedures varying only in temperature control. The wax emulsion plus a proper balance of leveling agents and resins produces polishes which exhibit high gloss, good flow-out properties, and good resistance to scuff and dirt pickup. **"Epolene E"** is compatible with a wide range of natural and synthetic waxes and resins.

"Epolene C" is a low molecular weight resin designed specifically for use in the packaging field, but possessing characteristics which are applicable to other uses. Flexibility, exceptional strength, and near inertness at room temperature and below have made it popular.

The **"Mekon 20"** series of microcrystal-

—Continued on page 68

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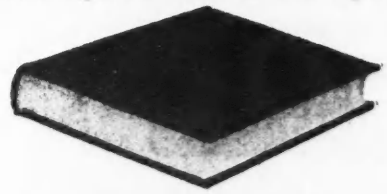

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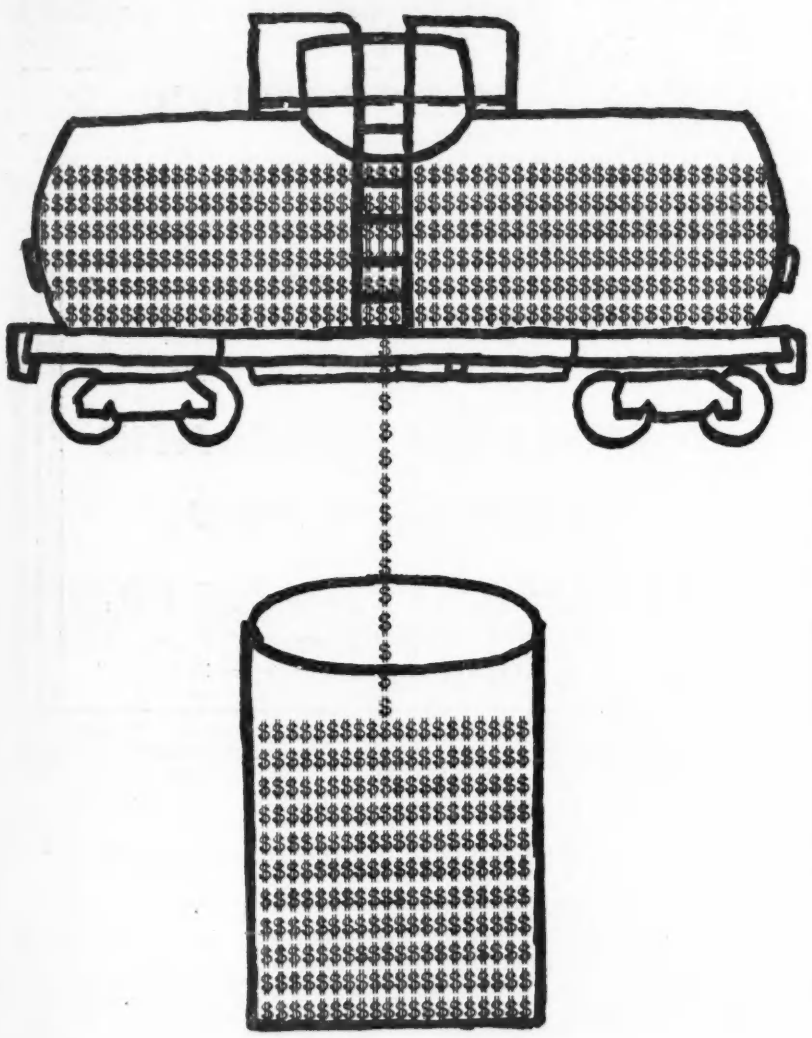

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Allied Chemical

Coal Chemicals

Phenol producers last week cancelled the 1 cent fourth quarter price increase in sales to resin manufacturers while maintaining the higher price for other consumers. That's the net result of a week which caused considerable stir in the industry. It all came about when one phenol producer, operating with a contract allowing the firm to change price anytime in the year provided 30 days notice be given, decided to maintain the old, lower schedule in sales to resin makers. Other producers, operating on a quarterly basis with a clause requiring 15 days notice of price change, had already told their customers on or before September 15 of the fourth quarter price hike. When it developed that the one producer was maintaining the old price for one segment of the market, the other producers reacted quickly to the competitive bid and rolled back their prices to meet the challenge.

Latest word then is that price of synthetic phenol to resin makers remains where it was before the recent fourth quarter price increase notifications. In addition at least one producer has announced that natural phenol as well will remain at the old schedule in sales to resin makers.

Most recent in the price increases recorded in intermediates occured last week in alkylphenols and Tobias Acid.

- A ½ cent price advance in alkylphenols—octylphenol, nonylphenol and dodecylphenol — was announced by a major supplier.
- Tobias acid was hiked 3 cents across the board by a large supplier.
- Effective date for both advances: October 1.

More phenol capacity due.

That's the announcement from one of the largest US producers of phenol.

October 1 Price Advances

Diphenylamine, 1c. per lb.
Dodecylbenzene, ½c. per lb.
Dodecylphenol, ½c.
H-Acid, 10c. per lb.
Nonylphenol, ½c.
Octylphenol, ½c.
Phenol, nat. and USP, 1c. per lb.
a-Picoline, 3c. per lb.*
Tobias acid, 3c. per lb

* One producer.

As revealed by the company last week a plant will be built at Texas City, Tex., with a capacity of 50 to 75 million pounds annually.

The increased output, which brings the producer's capacity to over 200 million pounds, will be used captively.

The new facility, expected to come on stream in early 1961, will employ a cumene oxidation process to produce phenol instead of the sulfonation method used in the company's other plants.

Ingots and steel poured for casting in August totaled 6,836,000 tons, as compared with 6,350,924 tons in July, according to American Iron and Steel Institute.

In August of last year in the midst of the steel strike only 1,439,277 tons were poured.

Based on the January 1, 1960, capacity rating of 148,570,970 net tons of raw steel annually, steelmaking facilities were utilized in August at an average of 54.2 percent of capacity, against 50.3 percent of capacity in July.

Average for the first eight months of 1960 was 74.4 percent of capacity.

The American Iron and Steel Institute estimated that steel production in the week ended September 25 would amount to 53.9 percent of theoretical capacity equivalent to 1,537,000 net tons of steel. Output in the week previous was 1,510,000 tons, 1,547,000 in the comparable week one month ago and 362,000 net tons in the corresponding week one year ago.

Coal Chemicals

Estimated output of coal chemicals recovered from cokeoven operations during the week ended September 18, were as follows:

Ammonia liquor	lbs.	486,012
Ammonium sulfate	lbs.	20,439,522
Benzene	gals.	1,971,050
Coaltar	gals.	10,773,275
Crude chemical oil	gals.	315,008
Solvent naphtha	gals.	63,001
Toluene	gals.	441,011
Xylene	gals.	126,003

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	Sept. 25, 1959
118.28	118.28	118.40	118.45

For Current Prices see Page 10

Basic Products

Benzene—Supply from cokeovens continues at a reduced rate.

One glance at steel operating rates—consistently in the fifties as of late—is graphic evidence of the present supply picture.

"If any thing, the situation is more acute." That's the word from one large supplier.

Continuing, the trade source said that all too frequently pleas were being received from consumers declaring that if material was not soon available production shutdowns would occur.

When and how will the supply situation ease?

Most observers are reluctant to voice a specific opinion on these questions because of the enigma posed by lagging steel production.

In general, however, trade sources frankly see no favorable factors in view for the balance of the year capable of altering the situation.

Having written off the balance of the year in terms of any chance of increased supply most trade people are looking to first quarter '61 as a time when some relief may be expected.

Reason they give for this is that steel inventory may be depleted enough by that time to warrant full-scale buying and thus a return to production rates in the 70 to 80 percent range. Even at that rate it may take as long as three months sustained output to catch up with demand if current requirements for benzene are maintained.

Naphthalene—The chronic tight supply of this basic material was further aggrevated by the recent rail strikes in the East, according to one trade source.

Shut down of vital plants, reduced schedules in others—all contributed to lowering production even further than recorded heretofore.

Turning to imported material in order to continue production, prices in the range of 18 to 19c. per pound have been encountered — three times the domestic contract price.

Results of attempts to continue production using imported naphthalene to augment domestic supply is evident in the higher prices for some intermediates beginning with the fourth quarter.

In view of the critical tight supply of naphthalene, is there any possibility of a price rise? No, answer most trade observers. Reason lies in the expanding capacity of planned petroleum-naphthalene plants. Announcements from oil firms of facilities either building or on the drawing boards now totals 275 million gallons annual capacity. Facing up to this challenge cokeoven operators seem determined to hold the price line in order to better meet upcoming oil competition.

Phenol—In a surprise move last week the fledgling 1c. price increase for natural and synthetic phenol was rescinded on sales to resin manufacturers.

Latest word is that the price hike originated for fourth quarter contract sales will still apply to consumers other than resin manufacturers.

Apparently originating when one producer did not advance the price to resin manufacturers, other phenol producers moved quickly to meet competition and using telephone and telegraph notified resin customers of the turnabout.

Intermediates

Alkylphenol—A price advance of ½c. across the board has been announced

Coal Chemicals

by a major producer. Effective date is October 1.

Octylphenol in tankcar quantities will be 21½c. a pound.

Nonylphenol, same basis, will be 20c. a pound.

Dodecylphenol, same basis, will be 20c. a pound as well.

The company reporting the increase indicates that this is the first price change for this group of chemicals since 1958 and attributes the hike to increased costs of materials and manufacturing.

Rubber Chemicals—Subject to disturbing market influences throughout the year, rubber chemicals are facing problems on two fronts:

- A fluctuating and uncertain auto situation.
- Effect of new materials on traditional rubber chemical markets.

Auto and tire inventories have been at consistently high levels throughout the year. As the new model years begins, production of '61 models is being held below the usual first of the season spurt in order to allow dealers to dispose of large stocks of '60 model cars. Result is that calls from the auto industry for rubber chemicals has been below the usual fall demand.

In another facet of the automobile situation the influence of compact cars on rubber chemicals has been a paradoxical one.

On one hand it is evident that the smaller tires and sizes of compacts results in less rubber per unit. In addition the lighter weight of compacts means less tire depreciation and longer utility. Replacement sales per unit are therefore bound to suffer.

Diametrically opposed is the fact that the success of compact cars has meant an increase in overall industry unit sales which in turn means more demand for rubber chemicals.

Another factor which has aided rubber chemicals as a result of the success of compact cars is that with a greater variety of tire sizes being fitted to autos, inventory must climb in proportion.

One trade source asked last week to comment on the long term influence of compacts on rubber chemicals replied that, "We'll need more history under our belts before a definitive answer can be given." The various factors appear to balance, he continued, but, "I would say the increase in car volume, regardless of size, will help rubber chemical sales."

The effect of newer materials replacing rubber chemicals in traditional areas is one more keenly felt by the trade.

Citing latex foam as only one example, a trade observer commented that demand for latex foam is as great as ever but that polyurethanes are replacing rubber chemicals as basic building materials.

It is in this area that rubber chemical executives feel the greatest danger lies. To offset the inroads of newer materials three moves are proposed—develop new uses for rubber chemicals, research new rubber chemicals and/or come up with new polymers.

Most trade sources agreed that basic rubber chemical demand is bound to grow. The rate, however, will depend on the success of the industry in meeting the challenge created by the new materials in competition with it and the long term effects of the success of compact cars.

Tobias Acid—A new schedule has been announced, embodying a 3c. across the board increase.

Carload or truckloads quantities will sell for 81c. per pound.

Less car load or truckload price will be 84c.

New schedule is to become effective October 1. Increase in price is attributed by a company spokesman to the rising cost of naphthalene.

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o-CHLORANILINE
p-CHLOR-o-NITRANILINE
4-CHLOR-2-NITRO ANISOLE
4,4'-DIAMINO-DIPHENYLAMINE-2-SULFONIC ACID
2,4-DIAMINOANISOLE
2,5-DICHLORANILINE
2,5 DICHLORNITROBENZENE
ETHYL p-TOLUENE SULFONATE
o-FORMYL BENZENE SULFONIC ACID
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METHYL p-TOLUENE SULFONATE
5-NITRO-2-AMINO PHENOL
5-OXO-1-PHENYL-2-PYRAZOLINE-3-CARBOXYLIC ACID ETHYL ESTER
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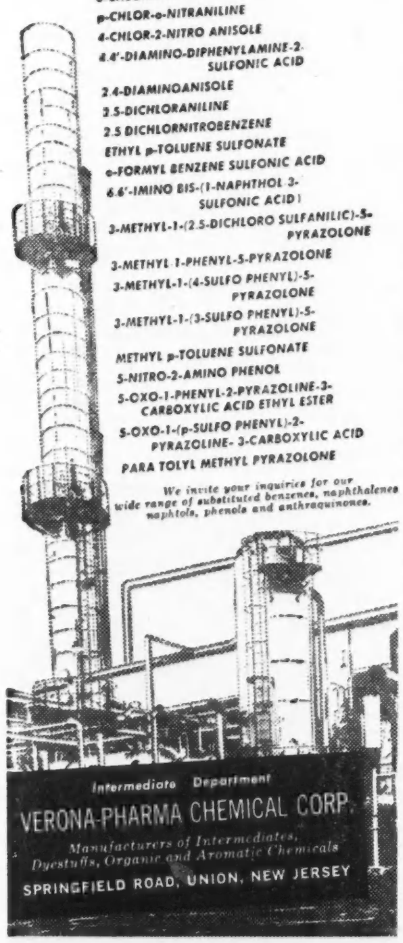

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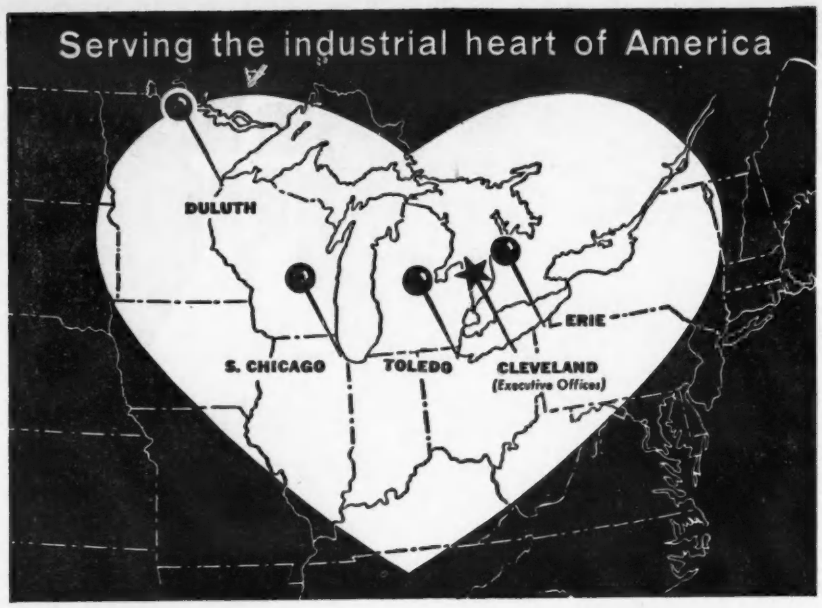

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Cyanamid Starts Resin Unit For Northwest Paper Makers

Ground is being broken this week by American Cyanamid Company for a new paper chemicals plant at Vancouver, Wash.

The facility, which is expected to be in operation early in 1961, will produce wet-strength resins for paper makers in the area. Other products are to be added later.

The plant will be operated in connection with Cyanamid's new and enlarged branch office and warehouse in Portland, Ore.

PAPI Price Is Cut

Carwin Company, North Haven, Conn., has just reduced the price of polymethylene polyphenylisocyanate (PAPI). Formerly listed at $2.25 a pound, the reactive intermediate is now available in drum lots at $1.50.

R&D: Dynamic

—Continued from page 4

pharmaceutical industry as a pioneer in turning scientific discovery into rapid growth:

"We have been pouring our own resources into planned discovery at a rate that today is unequalled. As a result, domestic sales of human ethical pharmaceuticals have shot up from $150 million in 1939 to almost $2 billion last year. This is a multiplication of thirteen times in twenty years."

The industry is now spending 7.8 percent of its worldwide sales on research and development, he notes, adding that this is a higher percentage than in any field except aircraft, where most research is subsidized by the government. The pharmaceutical industry finances 99 percent of its research with its own funds, he points out.

In the wake of the latest round of Kefauver probing, Lee H. Bristol, chairman of the board of Bristol-Myers Company, told the meeting that this is one of the times when industry must undertake to re-sell the American people on advertising.

Behind Mr. Bristol's call to action lay charges by the antimonopoly subcommittee that the pharmaceutical industry was spending too much money on promotion.

"We have an expanding economy—not a static one—no matter what our eager politicians may say. Our profit and loss system, which is the US secret missile, depends on advertising and don't let anyone try to tell you otherwise," Mr. Bristol declares.

Olin Phosphoric Plant

—Continued from page 5

new plant will be a 75 percent concentrate. Olin's high analysis fertilizer plant at Pasadena, Tex., will not be a customer for this acid production, the company reports.

The Joliet plant is the third new chemical unit to be started by the corporation this year. Construction is under way on a hydrazine plant in Saltville, Va., to supply fuel for the Titan II missile, and on a chlorine and caustic facility in Charleston, Tenn.

Olin's $30 million chmical expansion program announced last year did not include this unit. That program calls for improved chlorine facilities at Niagara Falls, N. Y., and new facilities for production of petrochemicals at Brandenburg, Ky., and sulfamic acid at Joliet.

Plastic Makers

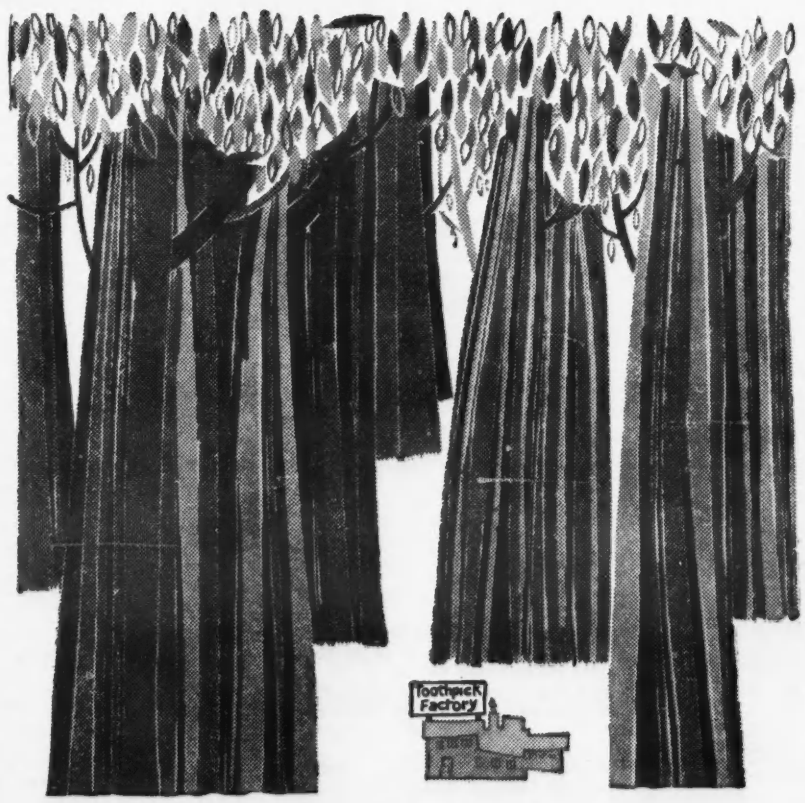
—Continued from page 7

sions given to foreign exporters by their governments in some instances serve as a spur to the foreign-based industries which are competitive with those in this country.

It was also recommended that American exporters be relieved of the necessity of obtaining licenses to ship polyethylene and polyvinyl chloride to Iron Curtain countries. These are commodities available from several industrial nations, it was explained, and the export control licensing requirement puts US sellers at a competitive disadvantage with foreigners.

Fries & Bro. Correction

The Fries & Bro. listing on page 1795 of OIL, PAINT, & DRUG REPORTER'S 1960 Buyers Directory Issue erroneously lists a second address for that company. Fries is located at 60 East 42nd Street, New York 17, as shown. The Memphis, Tenn., listing that follows should be disregarded.



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ATLANTA 3, GA. 1261 Spring St. N.W.
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PALO ALTO, CAL. 701 Welch Road
NEW YORK 13, N. Y. 40 Worth St.
PHILADELPHIA 3, PA. 1616 Walnut St.
PORTLAND, ORE. 1238 N.W. Glisan St.
RUMFORD 16, R. I. 50 North Broadway
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IMPORTS at United States Ports

New York

ALOE—53 cs, Max Van Pels, Port Elizabeth
97 cs, Meer Corp, Ciudad Trujillo
ALUMINUM POWDER—4 dms, L Uhlfelder, Bremen
13 dms, Aluminum Corp of America, Rotterdam
ALUMINUM SULFATE—662 bgs, Philipp Bros Chemicals, Bremen
AMMONIUM CARBONATE—60 dms, American Agricultural Chemical Co, Glasgow
AMOBARBITAL—10 kgs, Copenhagen
ANILINE DYES—32 dms, Geigy Chemical Corp, Havre
50 dms, H Bruckmann & Lorbacher, Bremen
12 dms, Heemsoth Kerner, Kobe
6 dms, Heemsoth Kerner, Liverpool
10 dms, Ciba Co, Liverpool
9 dms, L & R Organic Products Co, Liverpool
ANTIMONY OXIDE—200 bgs, Indussa Corp, Antwerp
ANTIMONY REGULUS—100 cs, Indussa Corp, Antwerp
537 cs, Rijeka
ARABIC GUM—253 bgs, Irving Trust Co, Port Sudan
500 bgs, Morgan Guaranty Trust Co, Port Sudan
ARROWROOT—3,000 bgs, Morningstar Paisley Inc, St Vincent
ARSENIC, METALLIC—37 bbls, Overseas Metal & Ore Corp, Burea
ARSENIC, WHITE—600 dms, American Firstoline Corp, Marseille
ASBESTOS FIBER—600 bgs, N American Asbestos Corp, Lourenco Marques
ASCORBIC ACID—20 dms, Copenhagen
BARBASCO ROOT—419 bgs, National City Bank, Callao
416 bls, Callao
BARIUM CARBONATE—1,000 bgs, World Bulk Shipping, Rotterdam
BEESWAX—36 bgs, Ciudad Trujillo
63 bgs, Puerto Plata
BERGAMOT OIL—12 hf cs, Tombarel Products Corp, Messina
88 hf cs, Messina
BILE—4 dms, Wilson & Co, Buenaventura
BILE ACIDS—8 dms, Merck & Co, Buenos Aires
BLANC FIXE—400 bgs, C J Osborn Co, Rotterdam
BLEACHING POWDER—100 dms, Chemical Manufacturing Co, Liverpool
BONE—429 bgs, A M Goldstein, Santos
305 bgs, K Mayer, Brisbane
152 bgs, International Packers Ltd, Santos
BONEMEAL—1,101 bgs, Velleman Corp, Buenos Aires
BONE CHARCOAL—200 bgs, Riches Nelson, Rotterdam
BRONZE POWDER—32 dms, L Uhlfelder, Bremen
15 dms, Crescent Bronze Powder Co, Hamburg
35 dms, B F Drakenfeld, Bremen
CALCIUM CARBONATE—2,400 bgs, Whittaker Clark & Daniels, Liverpool
400 bgs, C B Chrystal Co, Liverpool
2,400 bgs, N H Wetzner, Antwerp
600 bgs, Pluess Staufer, Antwerp
1,060 bgs, Antwerp
CALCIUM HYPOCHLORITE—600 dms, National City Bank, Yokohama
CALCIUM NITRATE—200 bgs, Rotterdam
CAMPHOR—23 cs, Magnus Mabee & Reynard, Keelung
50 cs, Manufacturers Trust Co, Keelung
CARAWAY SEED—300 bgs, Rotterdam
CARBAZOLE—2 dms, Terra Chemicals Inc, Rotterdam
CARNAUBA WAX—125 bgs, Frank B Ross, Parnahyba
100 bgs, Smth & Nichols, Salvador
CASEIN—3,000 bgs, Crawford Kish & Co, Gdynia
CASSIA—250 bls, R J Spitz, Hong Kong
250 bls, Knickerbocker Mills, Saigon
158 bls, J F Frank, Rotterdam
303 bls, M J Golombeck, Rotterdam
1,932 bls, K Landes & Co, Saigon
332 bls, Rotterdam
CASTOR BEANS—73 bgs, Herbst Bros, Cap Haitien
320 tons, Woodward & Dickerson, Salvador
247 tons, Chemical Bank, Rijeka
CEDRAT OIL—4 hf cs, Messina
CELERY SEED—255 bgs, Fritzsche Bros, Bombay
172 bgs, Bombay
CELLULOSE EXTRACT—270 bgs, Barkey Importing Co, Gothenburg
CETYL CHLORIDE—6 dms, Ganes Chemical Works, Bremen
CINNAMON BARK—104 bgs, Rotterdam
CINNAMON QUILLS—52 bls, Fritzsche Bros, Colombo
50 bls, C M Van Sillevoldt, Colombo
15 bls, Curacao Trading Co, Colombo
90 bls, Colombo
CITRONELLA OIL—17 dms, Volkart Bros, Colombo
15 dms, Givaudan Corp, Keelung
CLOVE—400 bgs, National City Bank, Zanzibar
200 bgs, Zanzibar
300 bgs, Djibouti
CLOVE OIL—4 dms, D W Hutchinson & Co, Mombasa
10 dms, Magnus Mabee & Reynard, Mombasa
10 dms, Morgan Guaranty Trust Co, Zanzibar
COBALT OXIDE—536 cks, Antwerp
COCA LEAVES—110 bls, Chase Manhattan Bank, Salaverry
COCONUT OIL—700 tons, American Trust Co, Zamboanga
516 tons, Pacific Vegetable Oil Corp, Manila
COLORS, DRY—2,400 bgs, Naftone Inc, Bremen
COPAL GUM—214 bgs, Morgan Guaranty Trust Co, Lobito
COPPER CYANIDE—100 dms, Chemical Manufacturing Co, Liverpool
CORN OIL—220 tons, Corn Products International, Rotterdam
CORN STARCH—450 bgs, Corn Products International, Rotterdam
1,000 bgs, Geismar & Co, Bremen
2,000 bgs, Impex Agricultural Corp, Rijeka
400 bgs, Rotterdam
2,440 bgs, Antwerp
CUMIN SEED—602 bgs, Khorramshahr
100 bgs, Bombay
CUTTLEFISH BONE—120 cs, Lisbon
DAMMAR GUM—84 bgs, O G Innes Corp, Singapore
DEGRAS—79 dms, N I Malmstrom, Freemantle
73 dms, Cholesterol Products, Melbourne
121 dms, Olympic Shipping Co, Liverpool
100 dms, Hummel Lanolin Corp, Rotterdam
2 dms, H J Meeter Co, Rotterdam
33 dms, Malmstrom Chemical Corp, Rotterdam
DEXTRIN—20 bgs, Stein Hall & Co, Rotterdam
DIACETYL—8 cs, Dorf International, Rotterdam
4,4-DIAMINOSTILBENE-2,2-DISULFONIC ACID — 50 dms, Advance International Ltd, Liverpool
DYES, COALTAR—189 dms, H Bruckmann & Lorbacher, Hamburg
86 dms, Orlex Dyes & Chemical Corp, Hamburg
EARTH COLORS—200 bgs, Smith Chemical & Color Co, Rotterdam
250 bgs, Rotterdam
FATTY ALCOHOL—163 tons, Onyx Oil & Chemical Co, Aarhus
FERROSILICON — 250 dms, Hostachem Corp, Bremen
FISH OIL—5 dms, Chimbote
FUEL OIL—126,450 bbls, Metropolitan Petroleum Corp, El Palito
111,712 bbls, Signal Oil & Gas Co, Aruba
FURFURAL—892 tons, E I Dupont De Nemours & Co, La Romana
GELATIN—560 bgs, T M Duche & Sons, Antwerp
132 bgs, Onyx Chemical Corp, Bremen
300 bgs, United Hat Fur Cutting Co, Bremen
300 bgs, Manhattan Adhesives Corp, Rotterdam
23 bbls, Antwerp
20 cs, Antwerp
GERANIUM OIL—2 bbls, Polarome Manufacturing Co, Marseille
GINGER OIL—4 cs, Fritzsche Bros, Kingston
GLANDS, PANCREAS—52 cs, Van Gelder Fanto Corp, Auckland
GLUE—82 cks, Franco Belgian Corp, Bordeaux
800 bgs, Jung Forwarding Co, London
700 bgs, Jung Forwarding Co, Liverpool
GLYCERINE—39 tons, Chemical Bank, Cutuco
GLYCEROPHOSPHORIC ACID—1 cs, Hudson Shipping Co, Liverpool
GLYCERYL MONOSTEARATE—4 kgs, Yardley of London, London
GRAPHITE—500 bgs, Asbury Graphite Mills, Colombo
100 bgs, Joseph Dixon Crucible Co, Colombo
1,049 bgs, Asbury Graphite Mills, Hong Kong
250 bgs, Bankers Trust Co, Mombasa
GUAR GUM—250 bgs, Wedeman Godknecht, Genoa
200 bgs, Morningstar Paisley Inc, Genoa
300 bgs, T M Duche & Sons, Genoa
600 bgs, T M Duche & Sons, Rotterdam
GYPSUM, CRUDE—10,323 tons, U S Gypsum Co, Hantsport
HOOF & HORNMEAL—600 bgs, Martin Baer & Co, Santos
INDIGO—192 dms, Putnam Chemical Corp, Rotterdam
IODINE, CRUDE—300 dms, Bunge Corp, Yokohama
IRON BLUE—15 dms, Van Oppen & Co, Liverpool
IRON OXIDE—89 bgs, Revelli Chemicals, Malaga
200 bgs, F D Davis Co, Malaga
IRON POWDER—54 dms, H Bruckmann & Lorbacher, Rotterdam
JABORANDY LEAVES—55 bls, A W Fenton & Co, Parnahyba
KARAYA GUM—431 bgs, Block Drug Co, Bombay
248 bgs, S B Penick & Co, Bombay
122 bgs, Morningstar Paisley Inc, Bombay
KOLA NUTS—200 bgs, D Steengrafe & Co, Kingston
LACTOSE—10 dms, R J Saunders & Co, Rotterdam
LAUREL LEAVES—267 bls, Izmir
LAVENDER OIL—3 bbls, Charabot & Co, Marseille
5 bbls, Polarome Manufacturing Co, Marseille
LEMON OIL—19 dms, Ungerer & Co, Vera Cruz
30 cs, Messina
LEMONGRASS OIL—6 dms, Maywood Chemical Works, Cochin
30 dms, Fritzsche Bros, Cochin
688 dms, Internatoinal Flavors & Fragrances Inc, Cochin
28 dms, Volkart Bros, Cochin
LIVER CONCENTRATE—17 dms, Wilson & Co, Buenos Aires
LOCUST BEAN GUM—50 bgs, Nehls & O'Connel, Genoa
250 bgs, T M Duche & Sons, Rotterdam
200 bgs, Stein Hall & Co, Portimao
1,000 bgs, J L Quesada, Portimao
LOGWOOD EXTRACT—27 dms, American Dyewood Co, Kingston
MAGNESITE—1,130 bgs, Cochin
MANGANESE BLUE—44 dms, Naftone Inc, Bremen
MARJORAM—49 bgs, H H Pike & Co, Ciudad Trujillo
MENTHOL—100 cs, DeBear Inc, Santos
11 dms, Cannes
MERCURIC OXIDE—50 cs, Bankers Trust Co, Rotterdam
40 cs, Trieste
MERCURIC OXIDE, RED—2 cs, E T Browne Drug Co, London
MERCURY—30 flks, Lo Curto & Funk, Tampico
50 flks, Tampico
MESITYLENE—3 dms, Allied Chemical Corp, Rotterdam
2-METHYLNAPHTHALINE—38 dms, G A Abood Co, Rotterdam
METHYL PYRIDINE—34 dms, Browning Chemical Co, Antwerp
5-METHYL-2-SULFANILAMIDE ISOXAZOLE — 40 dms, Hoffmann-La Roche Inc, Yokohama
MINERAL LUBRICATING OIL—200 dms, Asiatic Petroleum Corp, Rotterdam
MOLASSES—477 tons, W R Grace & Co, Salaverry
MONOCHLOROACETIC ACID—80 dms, Bremen
NAPHTHENIC ACID—136 dms, Imperial Oil Ltd, Barranquilla
NUTMEG—26 bgs, Gillespie & Co, St Vincent
280 bgs, Dodge & Olcott, Singapore
NUX VOMICA—160 bgs, Volkart Bros, Cochin
OCOTEA CYMBARUM OIL—25 dms, American Metagraph Co, Itajai
OITICICA OIL—100 tons, Irving Trust Co, Fortaleza
OLIVE OIL—49 dms, Manufacturers Trust Co, Seville
50 dms, Swiss Credit Bank, Seville
50 dms, A N Cory, Seville
100 dms, Gem Packing Corp, Seville
50 dms, J Victori, Seville
174 dms, Samos Import Export Co, Seville
100 dms, Uddo & Taormina, Seville
216 dms, Swiss Credit Bank, Malaga
24 dms, J H Schroder, Malaga
100 dms, Malaga
25 dms, Seville
ORANGE PEEL—282 bgs, Cap Haitien
OREGANO LEAVES—250 bgs, Chemical Bank, Messina
PALMKERNEL OIL—68 dms, B M T Commodity Corp, Rotterdam
890 cs, B M T Commodity Corp, Rotterdam
200 tons, Balfour Guthrie, Matadi
300 tons, Corn Products Co, Matadi
494 tons, Matadi
PALMKERNEL OIL, HARDENED—100 cs, J F Braun & Sons, London
PAPAIN—60 cs, Chas L Huisking & Co, Mombasa
37 cs, V A Cordovi, Colombo
50 cs, I Levine, Colombo
50 cs, Mombasa
PAPRIKA—100 bgs, National City Bank, Hamburg
100 bgs, Archibald & Kendall, Hamburg
PATCHOULI OIL—15 dms, International Flavors & Fragrances Inc, Penang
5 dms, National City Bank, Penang
24 dms, A Chiris Co, Penang
PEATMOSS—1,000 bls, E Dunwoody, Bremen
2,575 bls, New Amsterdam Import Co, Bremen
1,750 bls, New Amsterdam Import Co, Aarhus
1,600 bls, E J Lang, Hamburg
3,500 bls, Premier Peatmoss Corp, Bremen
2,000 bls, Garden Supply Co, Bremen
250 bls, C Fafard, Bremen
2,500 bls, Marine Midland Trust Co, Bremen
PECTIN—54 dms, T M Duche & Sons, Copenhagen
PEPPER, BLACK—200 bgs, M J Golombeck, Belem-Para
280 bgs, Polak Trading Co, Singapore
140 bgs, Ludwig Mueller, Singapore
490 bgs, C M Van Sillevoldt, Singapore
140 bgs, L A Champon & Co, Singapore
140 bgs, A E Dunn, Singapore
PEPPERMINT LEAVES—35 cs, Lo Curto & Funk, Hamburg
PERCHLOROETHYLENE—285 bbls, International Selling Corp, Marseille
PETROLEUM, CRUDE—135,000 bbls, California Oil Co, Rastanura
140,550 bbls, Hess Inc, Bachaquero
108,073 bbls, Hess Inc, Punta Cardon
200,671 bbls, Ashland Oil & Refining Co, Sidon
210,573 bbls, Ashland Oil & Refining Co, Maracaibo
PIMENTO—40 bgs, Louis Furth, Kingston
160 bgs, M J Golombeck, Kingston
PIMENTO LEAF OIL—3 dms, Lo Curto & Funk, Kingston
1 dm, P H Petry, Kingston
1 dm, Fritzsche Bros, Kingston
POLLACKLIVER OIL—50 dms, Mitsubishi Corp, Yokohama
POLYVINYL ACETATE EMULSION—50 dms, Lloyd Associates, Bremen
POPPYSEED—100 bgs, Hershey & Co, Izmir
200 bgs, Wagner Bros, Izmir
500 bgs, C M Van Sillevoldt, Izmir
250 bgs, C M Van Sillevoldt, Rotterdam
400 bgs, Izmir
100 bgs, Rotterdam
POTASSIUM CHLORIDE—20 bgs, Riches Nelson, Hamburg
80 bgs, Bremen
POTASSIUM CYANIDE—100 dms, Chemical Manufacturing Co, Liverpool
POTASSIUM FERROCYANIDE—300 bgs, Filo Color & Chemical Corp, Rotterdam
POTASSIUM PERCHLORATE—100 dms, Orlex Dyes & Chemical Corp, Gothenburg
POTASH, CAUSTIC—144 dms, B T Chemco Inc, Gothenburg
PROPANTHELINE BROMIDE—2 dms, Byron Chemical Co, Hamburg
QUASSIA CHIPS—190 bgs, Kingston
QUEBRACHO EXTRACT—517 bgs, Barkey Importing Co, Buenos Aires
5,071 bgs, American Tanners Ltd, Buenos Aires
QUINIDINE SULFATE—14 dms, Chas L Huisking & Co, Hamburg
RADIUM ELEMENT—1 cs, Radium Chemical Co, Antwerp
RAPE SEED—440 bgs, Hartz Mountain Products, Rotterdam
150 bgs, H S C Trading Co, Rotterdam
RAUWOLFIA SERPENTINA ROOT—166 bgs, Meer Corp, Bangkok
16 bdls, Meer Corp, Tuticorin
RICE STARCH—200 bgs, Aurora Manufacturing Co, Bremen
ROCHELLE SALTS—20 bbls, Barcelona
ROSE HIP POWDER—5 dms, Barth Levitt Products, Gothenburg
SAGE LEAVES—298 bls, K H Werthon, Trieste
SANDALWOOD OIL—5 cs, Givaudan Corp, Cochin
SEEDLAC—200 bgs, Haeuser Shellac Co, Calcutta
200 bgs, Mantrose Corp, Calcutta
250 bgs, Wah Chang Corp, Bangkok
250 bgs, Capital Shellac Corp, Bangkok
SESAME OIL—50 dms, Copenhagen
SESAME SEED, HULLED—250 bgs, R J Spitz, San Juan del Sur
50 bgs, M J Golombeck, San Juan del Sur
500 bgs, Louis Furth, Corinto
SHELLAC—40 bgs, F H Paul & Stein Bros, Bremen
84 bgs, F H Paul & Stein Bros, Hamburg
SODA, CAUSTIC—180 dms, B T Chemco Inc, Gothenburg
SODIUM BICARBONATE—750 bgs, Chemical Manufacturing Co, Liverpool
SODIUM FERROCYANIDE—280 bgs, Antwerp
SODIUM HYDROSULFITE—160 dms, Toms River Cincinnati Chemical Corp, Rotterdam
SODIUM LAURYL SULFATE—10 cks, Liverpool
SODIUM SILICOFLUORIDE—750 bgs, Copenhagen
STARCH—620 bgs, Morningstar Paisley Inc, Rotterdam
SULFAMIC ACID—100 bgs, Caldwell & Co, Bordeaux
TALC—1,600 bgs, Whittaker Clark & Daniels, Bordeaux
1,005 bgs, Charles Mathieu, Genoa
1,145 bgs, Whittaker Clark & Daniels, Bombay
TAMARINDS — 8 bbls, Murbas Trading Co, Dominica
TANKAGE—420 bgs, Tupman Thurlow, Buenos Aires
TANNING EXTRACT—1,904 bgs, K Schroff & Associates, Fremantle
TAPIOCA FLOUR—2,192 bgs, Stein Hall & Co, Kohsichang
1,720 bgs, Morningstar Paisley Inc, Kohsichang
8,444 bgs, Morningstar Paisley Inc, Itajai
TARTARIC ACID—70 bgs, Byron Chemical Co, Palermo
THYME LEAVES—387 bgs, Alicante
THYME OIL—5 dms, Fritzsche Bros, Malaga
2 dms, Magnus Mabee & Reynard, Malaga
TOLU BALSAM—25 cs, J M Rodriguez & Co, Barranquilla
TRAGACANTH GUM—157 bgs, Meer Corp, Khorramshahr
447 bgs, Bombay
TRICHLOROETHYLENE—500 bbls, International Selling Corp, Marseilles
TRIMETHYLAMMONIUM CHLORIDE — 10 dms, Hoffman-La Roche Inc, Hamburg
TUNG OIL—250 tons, Bunge Corp, Buenos Aires
UREA—5,000 bgs, H J Baker & Bro, Antwerp
UREA, SYNTHETIC—2,000 bgs, Chemical Manufacturing Co, Liverpool
WATTLE BARK—1,072 bls, Bowring & Co, Capetown
WATTLE EXTRACT—1,034 bgs, Barkey Importing Co, Mombasa
WAX—200 bgs, Hostawax Co, Bremen
100 bgs, Wedeman & Godknecht, Bremen
460 bgs, Matthiessen & Co, Bremen
WAX EMULSIFIER—20 dms, Hostawax Co, Bremen
WAX, SYNTHETIC—5,000 bgs, Moore & Munger, Durban
WHEAT GERM OIL—10 dms, Peder Devold Oil Co, Rotterdam
WORMSEED—2 bls, S B Penick & Co, Antwerp
ZINC CYANIDE—50 dms, Chemical Manufacturing Co, Liverpool
ZINC OXIDE—500 bgs, Aceto Chemical Co, Liverpool

Los Angeles

ANTIMONY REGULUS—50 cs, Indussa Corp, Antwerp
CALCIUM NITRATE — 2,000 bgs, Bradley & Baker, Rotterdam
CARAWAY SEED—50 bgs, Hismoco American Co, Rotterdam
CASEIN—340 bgs, Borden Co, Buenos Aires
560 bgs, Buenos Aires
COPRA—500 tons, Paul X Smith, Keelung
1,120 tons, Procter & Gamble Co, Medina
CREAM OF TARTAR—50 bgs, Chas Pfizer & Co, London
EARTH COLORS—4 dms, F D Davis Co, Bremen
200 bgs, American Chemical & Pigment Corp, Bremen
2,330 bgs, Naftone Inc, Rotterdam
2,025 bgs, Naftone Inc, Bremen
FUEL OIL—100,000 bbls, Standard Oil Co, Curacao
IRON OXIDE—984 bgs, F D Davis Co, London
LOCUST BEANS—200 bgs, F P Dow, Rotterdam
LUBRICATING OIL—100 dms, Asiatic Petroleum Corp, Manchester
100 dms, Asiatic Petroleum Corp, Rotterdam
MOLASSES—6,557 tons, S Western Sugar & Molasses Co, Mazatlan
PEPPER, BLACK—150 bgs, Belem-Para
PETROLEUM, CRUDE—323,007 bbls, Standard Oil Co, Rastanura
POPPYSEED—50 bgs, Hismoco American Co, Rotterdam
TAPIOCA FLOUR—636 bgs, Stein Hall & Co, Bangkok
UMBER—90 bgs, Venice
UREA—5,000 bgs, Atkins Kroll & Co, Rotterdam

Philadelphia

BONEMEAL—127 tons, Baugh & Son, Buenos Aires
GYPSUM, CRUDE—11,059 tons, National Gypsum Co, Halifax
MENTHOL—15 cs, Vicks Chemical Co, Santos
MOLASSES—219,870 gals, Cienfuegos
2,748,159 gals, Jucaro
PEATMOSS—1,000 bls, Keer Maurer, Bremen
1,000 bls, Chase Manhattan Bank, Gdynia
500 bls, E Dunwoody, Bremen
PETROLEUM, CRUDE—122,944 bbls, Atlantic Refining Co, Bachaquero
117,411 bbls, Atlantic Refining Co, Caripito
117,141 bbls, Humble Oil Co, La Salina
155,378 bbls, Texaco Co, El Palito
151,371 bbls, Gulf Oil Corp, Mina Al Ahmadi
119,175 bbls, Mobil Oil Co, La Salina
524,236 bbls, Mobil Oil Co, Mina Al Ahmadi
TAPIOCA FLOUR—600 bgs, National City Bank, Itajai

San Francisco

ALUM—200 bgs, C M C Chemicals, Manchester
ANIMAL CHARCOAL—960 bgs, Glasgow
ANTIMONY OXIDE—238 bgs, National Lead Co, Hull
BONEMEAL — 263 tons, Stauffer Chemical Co, Buenos Aires
CALCIUM CHLORIDE—458 bgs, P W Bellingall, Hamburg
CARAWAY SEED—100 bgs, McClintock Stern Co, Rotterdam
CASEIN—100 bgs, J R Spellacy, Buenos Aires
COPRA—250 tons, Cargill Inc, Tacloban
1,000 tons, Cargill Inc, Cebu
CORIANDER SEED—500 bgs, California Commodities Corp, Hamburg
CREAM OF TARTAR—50 bgs, C Pfizer & Co, London
DICALCIUM PHOSPHATE—1,102 cs, J H Schroder, Antwerp
GELATIN—30 bbls, A J Fritz, Antwerp
LOCUST BEAN GUM—100 bgs, Hathaway Allied Products, Genoa
MONOSODIUM GLUTAMATE—100 cs, Ajinomoto Co, Yokohama
NUTMEG—50 bgs, Port of Spain
OLIVE OIL—104 dms, Seville
PEPPER, BLACK—150 bgs, Belem-Para
PETROLEUM, CRUDE—325,509 bbls, Signal Oil & Gas Co, Bandar Mashur
PIMENTO—50 bgs, Bankers Trust Co, Cristobal
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Drugs, Fine Chemicals

At almost any time during the past several years, one could say, almost without fear of error, that brucine was very short and where and when available, extremely high-priced. Now, suddenly, reports are reaching us that the alcohol denaturant is in ample supply and listed at $1.25 an ounce for a large lot order—relatively speaking, quite an attractive buy. A substitute for brucine, quassin is also readily obtainable and has been for several months, despite any indications to the contrary. In fact, the major supplier of this botanically-derived chemical, queried by OPD last week, reported that there is sufficient raw material in the Caribbean to fill demands for two or three more years.

The reason for this report is that a synthetic organic chemical, tradenamed "Bitrex," is now being sold as an alcohol denaturant. More than likely, this will eventually capture a substantial part of the business. Faced with new competition, suppliers of the alkaloids are understandably concerned.

Brucine has been used traditionally as the denaturant in the formula for SD-alcohol 40. It is a by-product of the manufacture of strychnine from nux vomica and consequently frustrated not only by the amount of raw material available but also by demand for strychnine at any given time. Another hazard is that India, major source of nux vomica, has been known to place an embargo on exports, throwing buyers worldwide into a tizzy.

When the brucine shortage became acute about two years ago, the Treasury department's Alcohol and Tobacco Tax division issued an order permitting quassin to be used as a substitute in the manufacture of SD-40. This had been done by authorities in Canada earlier.

Following Treasury's action, the alcohol industry descended upon a leading importer of botanicals and requested some 50,000 to 60,000 ounces of quassin. Moving quickly, the firm's representatives set off for the Caribbean where they completed negotiations for a large supply of quassia chips, necessarily tying themselves to a long term contract with the gatherers in the bargain.

For about six months, the firm was hard pressed to meet its commitments. Since then, however, shipments have been arriving on schedule and it has filled requirements for quassin promptly. It will tomorrow, too.

Eventually, of course, "Bitrex" will capture a substantial part of the denaturant business. It has many things in its favor. Foremost is the always sure source of supply, second is pricing. For 500 ounces or more, the quote is $6.25 an ounce, delivered; 100 ounces list at $7, 50 ounces at $7.50 an ounce.

Only ¼ ounce per 100 gallons of alcohol is required. This compares with 1½ ounces of either brucine or quassin.

The US representative of the European firm which developed "Bitrex" reports it is now making deliveries—not just for trials but for actual usage.

Ascorbic Acid—A two-day conference on vitamin C has been scheduled by the New York Academy of Sciences, Section of Biological and Medical Sciences. It is set to meet at the Barbizon Plaza hotel, New York, on October 7 and 8.

Twenty-eight papers covering various aspects of the subject will be presented at the conference. Mostly of a technical nature, these include: the biochemical role of l-ascorbic acid in connective tissue; role of ascorbic acid in the incorporation of plasma iron into ferritin; and vitamin C in relation to cold temperature tolerance.

Of more immediate interest to persons involved in the sale of ascorbic acid, perhaps, is the information to be presented by Grace A. Goldsmith of the Tulane University School of Medicine, New Orleans. Her paper is entitled "Human Requirements for Vitamin C and Its Use in Clinical Medicine." Here's a preview:

Minimum requirement of ascorbic acid for prevention of scurvy in infants and adults is approximately 10 mg., or slightly less, daily. Evidence suggests that larger amounts are needed for normal growth, for optimal wound healing and possibly for maintenance of healthy gums. Requirements are increased during pregnancy and lactation and probably in hypermetabolic states and stress situations.

The amount of ascorbic acid needed for saturation of the tissues has been estimated as six to ten times minimum requirement, variation being due to methodology and criteria of saturation.

From a teleological standpoint, saturation may be the desirable state in man. Determination of optimal ascorbic acid intake, however, must await further knowledge of the function of this vitamin and development of tests indicative of early functional impairment. But until more data are available, provision of sufficient ascorbic acid to maintain near saturation of the tissues seems desirable.

The primary use of ascorbic acid in clinical medicine is in prevention and treatment of scurvy. Ascorbic acid therapy has been advocated in many diverse pathologic states but sometimes without adequate evidence of benefit.

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	Sept. 25, 1959
59.78	59.78	59.93	60.47

For Current Prices see Page 10

Camphor—As in June, no crude camphor was imported in July. Arriving here, however, were 23,600 pounds of refined, shipped by Japan (16,000 pounds, valued at $6,899 and dutied at $476), and Taiwan (7,600 pounds, valued at $2,828 and dutied at $225). Only 8,000 pounds were brought in the previous month.

Synthetic camphor imports in July amounted to 112,600 pounds and were valued at $41,295 and dutied at $5,625. Material came from the United Kingdom (89,000 pounds, valued at $31,967 and dutied at $4,477) and West Germany (23,000 pounds, valued at $9,328 and dutied at $1,148).

Hyoscyamine Hydrobromide—Prices for both hyoscyamine hydrobromide and hyoscyamine sulfate have been boosted to $7.75-$8.50 an ounce, the range reflecting a quantity breakdown, from the previously listed $7.

This is the continuation of an uptrend that began several months ago. It reflects a shortage of supplies that extends back to the raw materials.

Penicillin—According to the Federal Register, Food & Drug Administration has decided to allow a higher level of moisture in crystalline penicillin "G" capsules provided certain requirements are met.

FDA will permit a moisture content of 4 percent, versus the current 1.5 percent, if the drug maker seeking certification of the product proves it stable for the duration of its usefulness (six months).

The new ruling becomes effective immediately.

Saccharin—"Status quo" is the way sources describe the domestic market for saccharin. This means, of course, that US makers continue to run into the foreign competition and although overall demands are good, price stability is threatened.

Up 7,000 pounds from June, imports in July totaled 22,200 pounds and were valued at $31,755 and dutied at $6,693. Japanese material represented 20,200 pounds, valued at $28,726 and dutied at $6,059. The Netherlands took care of the remainder.

Tartrates—Domestic requirements for tartaric acid are quite heavy, supplies fully adequate. Occasional price weakness, however, is suggested by several knowledgeable people.

Noted in foreign trade statistics issued monthly by the Census bureau is Spain's emergence as the leading shipper of tartaric acid to the US. Presumably, this irks other European suppliers who have been established longer in this market.

In July, for example, Spain shipped 171,500 pounds of tartaric acid, three times as much as its closest competitor,

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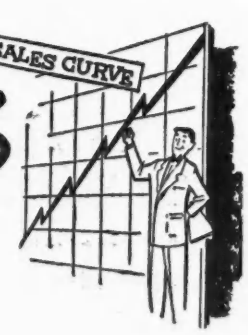

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Drugs, Fine Chemicals

Italy, and seven times as much as another rival, France.

Here are the figures: Total imports were 251,959 pounds, valued at $83,745 and dutied at $15,111.

Italy shipped 57,311 pounds, valued at $18,775 and dutied at $3,436. France shipped 23,148 pounds, valued at $7,549 and dutied at $1,387. Spain's shipment (171,500 pounds) was valued at $57,421 and dutied at $10,288.

Looked for by some people in the business is a reduction in import duties on tartaric acid and cream of tartar. Such a move was recommended by the Treasury department and is slated to be discussed by member nations of GATT when they convene at Geneva, Switzerland, this fall.

No protests against the lower duties were lodged with either the Committee for Reciprocity Information or the Tariff Commission when these agencies held hearings this past summer on tariff reductions which the government proposes to extend to GATT countries. This was understandable since a duty cut would benefit US consumers of the tartrates who have had no domestic supply sources for some time.

Spain is also becoming the leading supplier of cream of tartar. Its dominant position is immediately seen from these figures for July: Of total imports of 151,016 pounds (valued at $45,740 and dutied at $4,715), Spain shipped 111,334 pounds (valued at $35,450 and dutied at $3,477). Next in line was Italy with 22,046 pounds, valued at $5,550 and dutied at $688. Third and last, West Germany shipped 17,636 pounds, which was valued at $4,740 and dutied at $550.

Imports of argols in July totaled 110,230 pounds, valued at $9,540. The raw material for tartrates, argols are said to be used here for a different purpose. As in past months, Portugal was the shipper.

Vitamin B_{12}—These prices were posted September 13: trituration of cyanocobalamin $95 a kilo; USP crystals $83 a gram; cyanocobalamin in gelatin $100 a kilo.

Representing very sizable reductions, these listings were established by major suppliers, following the initial announcement by the No. 1 producer of the vitamin here, if not worldwide.

Several factors of undetermined relative significance appear to have pressured the declines. Most important, perhaps, is the fact of increasing competition from imported material, priced lower traditionally.

Botanicals

Prices for several large-volume domestic botanicals have been gradually moving up during the past several weeks. In this category are bloodroot, lobelia herb, mandrake root, white pine bark, and witch hazel leaves. All of these items get into winter-market pharmaceutical preparations and are consequently in good demand at the present time.

As noted earlier, collection of botanicals have been very small this season—particularly in such important areas as Tennessee, Kentucky and Virginia. Expecting this to lead to shortages, consumers have been placing orders early, indirectly propelling prices upward.

Agar Agar—No new offerings have been made by Japanese shippers of late, but to some small extent, availability of Korean material has alleviated the acute supply shortage. Quote on Kobe No. 1 strip is nominally $2.75 to $3 a pound.

Lobelia Herb—Small collections in face of a seasonal rise in requirements has seen prices go steadily upward. Before new crop started coming in, the listing on lobelia was about 55c. to 60c. a pound. Last week, new stock was selling at a range of 75c. to 80c., depending upon the size of the order.

Mandrake Root—The quote was recently advanced 5 cents, to 45c. a pound. Relatively small stocks and moderate to good inquiry were factors behind the change.

Wild Cherry Bark—Listing is unchanged at 22c. a pound for the thin natural material. This is a relatively high price, however. Demand currently is strong from makers of cough preparations.

Witch Hazel Leaves—The market is stronger. Advanced about 2 cents a pound, the quote today is 27c. to 28c. a pound.

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Coatings Materials

With supplies of the phthalate esters still tight and getting tighter, there is some speculation in the market that a switch to tricresyl phosphate by some plastics makers may be in the making. The esters are being allocated at about 50 percent by some suppliers, other smaller producers are reported meeting 100 percent of customers' past requirements. Business for the plasticizers is reported moving at a brisk rate and with naphthalene short due to steel's reduced capacity the effect on the phthalate plasticizers is resulting in even tighter supplies.

Some producers point to the conversion during the steel strike last year by some quarters in the trade to TCP as an indication of what might be in the offing. But there are two substantial roadblocks in the way of any proposed conversion. One is the price factor, the other is a matter of quality. TCP lists at 32½ cents per pound versus 26½ cents per pound for DOP. The 6 cents per pound difference is a big hurdle to cross, report many in the trade. The other factor is the matter of a sweating characteristic peculiar to TCP. TCP is reported to have the unwanted ability to raise bubbles in the film surface of the coating, giving an oily or tacky feel to the finish. These two problems are certain, in the minds of some in the trade, to prevent any wholesale switch to TCP. Others feel that a switch by some would at least take some of the heat off of the phthalate ester producers to meet customers demands.

Price reductions on low-density polyethylene have been announced by one producer. The reductions are reported to range up to 5 cents per pound and apply to almost all types of the company's trade name polyethylene resins and compounds.

Price Trends:

Advanced
None

Reduced
Casein, Argentine, ¼c. per lb.

Comparative Price Indexes
(100—1949 average)

Last week	Prev. week	Last month	Sept. 25, 1959
103.13	103.13	103.16	103.05

For Current Prices see Page 10

Prime Pigments

Aluminum Paste and Powder—Both the leafing and non-leafing aluminum pigments are reported to be moving well, according to reports made to aluminum producers by paint formulators. Backed by a long history, the leafing pigments have stood up well in sales over the past few months. Roofing paints are reported to be a big mover of both the leafing and non-leafing pigments. With the cooler weather beginning to set in around the country, the aluminum pigments producers anticipate stepped-up demand.

Newest item in roofing paint has been the development in the past year of colored roofing paint using the non-leafing aluminum pigments. One paint formulator announced this week the development of a roofing paint that reportedly insulates, waterproofs and weatherproofs any roof for periods of up to ten years. The new coatings also cools building interiors in summer months while retaining heat in the colder months.

The weatherproofing and insulating properties are made possible by a combination of flaked aluminum pigments and asbestos fibers in an alkyd base. Requiring no special equipment to apply, the new coating is said to four times thicker than ordinary paint.

Carbon Black—Spotty to routine market conditions continue to prevail, according to reports from trade sources. Prices are unchanged, with supplies at adequate levels.

Earth Colors—Demand is reported to be normal for this time of the year. Prices remain firmly established at their recently advanced levels. No change is anticipated from these conditions at the present time.

Lead Pigments—Demand continues at its routine pace, prices and supplies unchanged at their longstanding levels.

Titanium Dioxide—As demand from paper mills is reported to be at sustained rates, the Census Bureau reports that production of titanium dioxide in July was at the rate of 33,393 short tons. This rate was below the output set for the previous month and below that for July 1959.

In June production was reported at 37,626 short tons, while for July of last year the output of titanium dioxide hit 39,697 short tons.

Stocks showed some improvement in July when they dropped to 76,762 short tons from the 81,920 short tons reported for the month of June.

Tungstated Colors—Normal demand for all of the tungstated colors are reported by trade sources. Listings are said to be firmly established, with no changes anticipated.

Ultramarine Blues—Producers are looking for improved market conditions in the next few months, but presently are generally satisfied with the situation as it stands. No changes are reported for the ultramarine blues listings, as well as in its supply situation.

Yellow Mercury Oxide—Listings in effect call for a price of $4.89 for yellow mercury oxide NF, packed in 50 lb. drums. For technical material, packed in 100 lb. drums the price is $4.35 per lb. In 25 lb. drums the listing calls for a 3c. per lb. premium.

Zinc Oxide—The strike that has shut down operation of one of the largest zinc oxide producers in the industry is reported to be still in progress. No change is reported in the status of stocks for the industry in general or for the producer in particular.

Stocks at the producers warehouses were at high levels at the start of the strike, and are reported to be able to meet customers orders at this time. Demand has been only fair for the industry, and the strike is said to have had little effect on the supplies of the zinc pigments at this time.

Lacquer Materials

Plasticizers—With steel's output reduced, the flow of naphthalene is reported to be flowing at a correspondingly low level. The effect on the phthalate plasticizers has resulted in an even tighter supply situation than has existed in previous weeks.

Producers report material is being allocated on a 50 percent basis with little sign of any improvement for the remainder of the year. Much of course, depends on steel as petroleum sources for naphthalene are not counted on to take up the slack until some time in 1961.

Some sources are of the opinion that the larger consumers of the phthalate plasticizers might convert to tricresyl phosphate in an effort to detour the tight supply situation of the phthalates. The biggest roadblock in this maneuver is the higher cost for TCP. TCP currently lists at 32½ cents per lb. vs. 26½ cents per lb. for DOP. The 6c. per pound is not reported to have encouraged any wholesale conversions but plasticizer producers recall that during the steel strike of last year, many plasticizers consumers made the switch to TCP. The supplies of TCP are more than adequate for any switch, but the higher price is the big factor which makes it hard to make.

That some of the phthalate consumers would entertain the switch to a higher price plasticizer is a comment on the level of business activity now in progress. Producers report that business is excellent. Orders for such items as wire coatings and phthalate shieldings are rolling in at high rates. Since the business is there, will the switch to TCP be made?

Miscellaneous

Asbestos—July 1960 asbestos fibre shipments for the industry were slightly higher than those of the same period last year. Year to date shipments are running at a rate of approximately 10 percent or 44,200 tons ahead of 1959.

The domestic market continues at a low levels due to an acute reduction in the building and auto industries. Export shipments are running well above those for the same period last year and are expected to remain at this high level.

—Continued on page 69

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PITTSBURGH AREA, PA.—R. L. Weston, c/o Joseph Lead Co., Monaca, Pa.
PORTLAND, ORE.—Cordano Chemical Co., 56 S. E. Belmont St.
ST. LOUIS, MO.—J. E. Nichaus & Co., Inc., 1275 S. Kingshighway.
ST. PAUL, MINN. — George C. Brandt, Inc., 739 Pillsbury Ave.
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Essential Oils, Aromatics

Nominal reductions in the price of vanilla beans were the only changes among the essential oils and aromatic chemicals, but many things are brewing as it were. The citrus oils from Florida may be on the verge of advancing, sandalwood is exceedingly strong and there is some speculation that the vanillin prices will soon be on the move again. Bourbon vanilla beans were reduced 50 cents per pound; Mexican cut beans were reduced 75 cents per pound, and Mexican whole beans were reduced $1.25 per pound.

Greatest concern among the essential oil dealers, about Hurricane Donna's damage is for the grapefruit oil. Second and third on the list of worries are orange and tangerine, respectively.

It is said around the trade that a thorough investigation of Hurricane Donna's damage will be made October 10 by the United States Department of Agriculture. In the meantime, the following figures have been released by the Florida Citrus Commission.

Out of a possible 140 million boxes of fruit, from 15 to 25 million boxes have been lost. Estimates are that the remaining fruit of this season amounts to 25 million boxes of grapefruit and 90 to 92 million boxes of oranges.

Some dealers are quoting prices of $25 per pound for sandalwood and one aromatic chemical house has just announced it has developed a single aromatic chemical which has many of the properties of the natural oil. In fact, they claim their aromatic actually has residual properties that are superior to those of the natural oil.

Published sources speculated that vanillin might go even further in price, but manufacturers don't agree. With higher production costs, etc., one industry spokesman said, it would be unrealistic for prices to sink any lower. He said that, on the contrary, he expected to see them rise in the near future.

Price Trends

Advanced

None

Reduced

Vanilla beans, Bourbon, 50c. per lb.
Mexican cut, 75c. per lb.
Mexican whole, $1.25 per lb

Comparative Price Indexes

(100=1949 average)

Last week	Prev. week	Last month	Sept. 25, 1959
144.85	145.16	145.99	146.92

For Current Prices see Page 10

Essential Oils

Bay—Puerto Rican material remains at its previous levels—the 50-55 percent material remains at $2.40 per pound and the 55-60 percent material remains at $2.55 per pound.

Readers might be interested in knowing that the bay tree grows abundantly on the windward side of Dominica in the West Indies. The area is usually quite humid because of the steady trade winds that carry clouds from the Atlantic.

Trees grow at altitudes ranging from sea level to approximately 2,000 feet. The principal harvesting season is between September and December and between January and March, although small quantities of oil are produced the year round.

The branches of the bay tree are either broken off or cut off with machetes. Then this material is left to dry for a few days near the distillation places so that it will loose its moisture content and thereby be more easily distilled. Most of the distilleries are primative.

The smaller ones hold only about 250 pounds of leaves; the larger ones can accommodate 800 to 2,000 pounds of leaves. Stills are usually made of copper or sheeted iron. They have a wooden grid above which the leaves are put.

The still is heated with open fire which burns wood from the tropical forests of the island. After the leaves have been freed of their oil, they are used for mulching lime trees. As a general rule, the phenol content of bay oil in Dominica ranges from 50 to 60 percent.

It may run as high as 64 percent, but lots of oils that are high in phenol content are rare and in limited supply.

Cardamom—Material remains at the previously-quoted $39 per pound.

According to published sources, the cardamom capsule must be gathered from the fruit stems just before maturing while it is still somewhat green, beginning to turn yellow. If they are left on the fruit stems, they will split and eject their seeds.

The capsules are carefully cut off with scissors nowadays rather than carelessly pulled off as they were a good many years ago. The essential oil and principal flavoring agent that people have come to think of as cardamom, is contained almost completely in the seed within the capsule. Traders, however, take special pains to see that the capsules are meticulously dried, and cleaned.

They are placed on dry mats and set out in the sun. They cannot be allowed to dry too rapidly because the capsules might swell, burst and thereby lose some of their seeds. When the capsules are dried, the pieces of attached stalks, called pedicels, are cut off or fubbed off.

Then the capsules are graded into different sizes by sieves and dried in the air before they are packed into cases for shipment.

Grapefruit—No official change in the price of grapefruit oil has come about since Donna went through Florida. Dealers here are maintaining their position of flexible prices and small-quantity sales.

It has been said that there is very little material available either on spot or at scurce. It has also been said that some of the material that is for sale is of inferior quality.

Dealers explain the severe shortage thus:

Even before the hurricane, the grapefruit crop was considered rather small and, in the face of this, a large food producer began using huge quantities of grapefruit oil.

The market firmed considerably because of this increased demand; dealers began eagerly anticipating the arrival of the new crop.

But with the damage Hurricane Donna did to the groves in Florida—estimated conservatively between 25 and 35 percent—the market got "extremely tight," according to essential oil dealers in New York and citrus fruit processors in Florida.

A trade source pointed out that he would like to see the growers in Florida plant more grapefruit trees to take care of increasing demand in the future, but, he said, growers are reluctant to invest large sums of money in something that won't even begin to pay for itself for several years. (It takes the trees a few years to begin bearing fruit.)

And then too, grapefruit growers might be looking at the predicament some of the lemon growers on the West Coast find themselves in. In the early 50's when lemon oil was over $6 per pound and the crop was small, many growers doubled their plantings.

But now that these trees are bearing fully, and the demand has been more than met, the price has come down to, in some cases, as low as $1.25 per pound.

Orange—Prices remain at their previous levels even though damage is reported to have been done to the orange groves by Hurricane Donna.

Prices continue as follows: California expressed, USP, 70c. to 90c. per pound; California sweet, 60c. per pound; Florida, 45c. to 50c. per pound; Messina, $3.25 to $5 per pound, and West Indian bitter, $2.50 to $3.25 per pound.

Sandalwood—The market continues quite firm, with some dealers charging as much as $25 per pound for material.

It might be of interest to sandalwood users to know that one of the aromatic chemical companies has developed a single aromatic chemical which imparts the characteristics of sandalwood oil. It is a polycyclic alcohol.

At the present time this product is available for $6.20 per pound in drums. It may be used in soaps, detergents, cosmetic preparations and aerosols. It is said to have residual properties which are superior to the natural oil.

This new product is not a derivative of the natural oil, hence its price is not governed by the market conditions that affect sandalwood oil.

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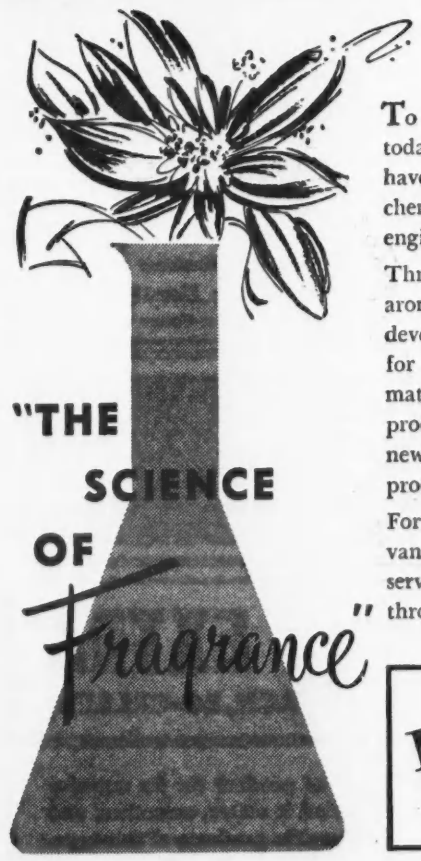

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Essential Oils

ence from the price of the natural oil. During the past eight years the price has fluctuated between $9 per pound and the present $22.50 per pound.

Tangerine—In spite of Hurricane Donna's rampage through some of the Florida tangerine groves, the price of tangerine oil has seen no price change. It remains at its previously quoted level, $4.75 per pound.

Aromatic Chemicals

Benzyl Benzoate—We have received word that benzyl benzoate is now selling for 62 cents per pound. This is 2 cents per pound more than the previously-quoted price.

This aromatic is used as a fixative in some floral aromas, a stabilizer for higher aliphatic alcohols and aldehydes and a solvent for synthetic vanillin, heliotropin and musks.

It is found in the flower oils of carnation, ylang ylang, tuberose, hyacinth, jonquil, and in balsams of tolu and Peru. It is a chlorine-free liquid that is also colorless.

Ethyl Vanillin—Prices remain at the reduced level that was established earlier this month. Quantities of material, packed in 100-pound fiber drums, purchased in 500-pound lots, sell for $5.65 per pound. Smaller lots than 500 pounds sell for $6.10 per pound.

Vanillin—Manufacturers report that no terrific rush of orders has come about as a result of the recent cuts in price.

One industry spokesman suggested that the cost of the flavoring in many products is not a significant factor because it is such a small percentage of the total cost of the item.

It was hinted that prices might not stay at their relatively low levels for long. Rising costs and lower profits are expected to boost the prices back up, it was said.

Seeds and Spices

Cassia—Arrivals of material from Saigon is expected on spot later this month. The market for material from Batavia is said to be firm, though inactive.

Nutmeg—Material from the East Indies is reported to be in tight supply while West Indian material is moving slowly.

Paprika—Prices for the new crop of Spanish material are reportedly high. Spot reserve is said to be rather small.

Pepper—Both black and white pepper remained right around their previous quotations. Muntok white remained at 78c. per pound while Malabar black and Lampong black both inched up from 54c. per pound to 55c. per pound.

The following information, from trade sources, is about imports in 1960 as compared to those in 1959.

Records show that 20,000,427 pounds of pepper were imported between January and July, 1959. During that same period of time in 1960, 26,000,398 pounds were imported. During August and September, 1959, the imports amounted to 5,600,000 pounds. It is estimated that during August and September of this year, roughly 3,500,000 pounds will be imported.

If this estimate is anywhere near accurate, it means that roughly 4,000,000 pounds more pepper will have been imported this year than in 1959.

Vanilla Beans—The market is reported to be quiet. Prices were reduced as follows: Bourbon beans were reduced in price from $10.75 to $10.25 per pound, Mexican cut beans were reduced from $11 to $10.25 per pound and Mexican whole beans were reduced from $12 per pound to $10.75 per pound.

Dealers report that the recent reductions in the price of vanillin and ethyl vanillin have had no affect on the vanilla bean market.

Fertilizer Consumption

—Continued from page 7

of gains was spotty, ranging from a whopping 47 increase in Kansas to a 7 percent decline in Utah.

In a further breakdown, USDA reports that total consumption included 16,069,027 tons of mixed fertilizers, 4,493,804 tons of chemical nitrogen materials, 517,948 tons of natural organic materials, 2,513,757 tons of phosphates and 494,932 tons of potash. The balance was made up of secondary and trace nutrient materials.

Mixtures comprised 63.5 percent of total consumption, amounting to 16,069,027 tons, an increase of 1,716,004 tons or 12 percent over the previous year's 14,353,023 tons. This was the first year since 1952-53 that mixtures had shown a tonnage increase.

The weighted average of primary plant nutrient content of mixtures used in the US was 6.22 percent for nitrogen, 12.54 percent for available P_2O_5, and 11.91 percent for K_2O, a total of 30.67 percent.

As compared with corresponding averages in 1957-58, the increase was highest for nitrogen (4.36 percent), while that for available potash was only 0.08 percent, and for potassium only 1.53 percent. These percentages, USDA points out, reflect the trend toward increased consumption on primary nutrients in mixtures used in the US.

Consumption of nearly all chemical nitrogen materials for direct application increased substantially in 1958-59. But use of ammonium sulfate and calcium cyanamide declined. The decrease in ammonium sulfate, USDA says, may have been due to supply and distribution problems as consumption for direct application increased in most producing areas.

Consumption of the natural organic products increased about 5 percent, dried manures accounting for most of the gain in this class.

UK Chemicals to Grow

—Continued from page 3

days, petrochemical development holds the spotlight. Here's what has happened to the UK petrochemical picture since 1953, in terms of carbon content:

	Tons (Est.)
1959	420,000
1958	330,000
1957	300,000
1956	240,000
1955	220,000
1954	180,000
1953	140,000

Dramatic gains in plastics also can be seen. UK output climbed from 347 million pounds in 1950 to 1.122 billion pounds in 1959. (US output in 1950: 2.205 billion pounds; in 1959, 5.5 billion pounds).

Great Britain, while a late-comer in synthetic rubber (largely because of extensive interests in natural rubber), nonetheless is scurrying to put up or increase capacity for SBR, butyl, neoprene and other polymers.

Paint Industry Growth Slow

The paint industry is one segment of chemical business in Great Britain which has grown slowly—only 20 percent between 1954 and 1959.

In the dyestuffs market, Britain meets its own needs and is able to export about 15 percent of the world's trade in coloring materials.

The pharmaceuticals industry has grown rapidly since the war. Sales now amount to $450 million. Exports have risen from $65 million in 1950 to $112 million in 1959.

The synthetic fiber business in England, dominated largely by Imperial Chemical Industries, Ltd., has made lively gains since the mid-fifties.

In 1955, total output of non-cellulosic man-made fiber was 40 million pounds. In 1959, production reached 85 million pounds, despite a chronic case of doldrums in the textile industry. Further gains are expected when a 30-million-pound-a-year acrylic fiber plant goes up.

The role of chemicals in Britain's export business is important. As a group, chemicals rank third in the country's total trade, exceeded only by exports of engineering products and motor vehicles. In 1958, chemical exports amounted to $740 million.

This story is based on a paper presented by John Townsend, ICI's director of sales, at last week's Chemical Market Research Association meeting in Portsmouth, N.H.

Asbestos a Problem

—Continued from page 7

put of 2 million tons from thirty-five countries. The industry has been built upon exports with about 95 percent of total output going to foreign countries.

Shipments were made to fifty-six countries during 1959 and were valued at a record $110.4 million. In recent years, the greatest competition for this world trade has come from South Africa, Southern Rhodesia and the USSR.

Oils, Fats and Waxes

Trading in oils and fats lacked volume last week. Soybean oil was quiet, the market backed and filled, closing unchanged. Good trade was reported in crude cottonseed oil and prices ruled unchanged and steady. Peanut oil was inactive and lower, declining ¼ cent. Corn oil also was easier and slightly lower. Crude coconut oil was quiet, but shipments turned firmer and raised slightly, reflecting higher copra, which advanced $2.50 per ton. The lard market was steadier and fractionally higher.

Slackened buying interest in tallow and greases created an easier tone and all grades declined ⅛ cent per pound. Soapers absorbed moderate quantity at the lower levels.

Cheaper flaxseed was reflected in linseed oil, crushers reduced quotations 1/5 cent per pound. New business continued slow, but withdrawals against contracts moved in good volume. Quiet demand for tung oil weakened the market and firm bids could have pared asking prices ¼ cent per pound. Some improvement was reported in the demand for Brazilian castor oil, with quotations unchanged though still shadable in some quarters. Safflower oil was unchanged for spot delivery, while new crop oil was ¼ cent lower for October-December shipment.

Reduced demand for soybean meal brought price shading and market was 50 cents to $1 per ton lower. Linseed meal also was inactive and off 50 cents per ton. Improved trading in cottonseed meal kept the market firm.

Government has changed pricing policy on CCC-held soybeans. For year (October 1-May 31)—CCC soybeans will be sold at market price, but not less than 105 percent of current (1960) county soybean support prices, plus carrying charges.

Price Trends

Advanced

Cocoa butter, 1c. per lb.
Coconut oil, crude, ⅛c. per lb.
Copra, $2.50 per ton.
Lard, cash, ¼c. per lb.

Reduced

Corn oil, crude, ⅛c. per lb.
Refd., ⅛c. per lb
Greases, ⅛c. per lb.
Linseed meal, 50c. per ton.
Peanut oil, crude, ¼c. per lb.
Refd., ¼c. per lb.
Soybean Meal, $1 per ton.
Tallow, inedible, ⅛c. per lb.

Comparative Price Indexes

(100=1949 average)

Last week	Prev. week	Last month	Sept. 25, 1959
108.47	108.94	108.15	111.66

For Current Prices see page 10

Vegetable Oils

Castor—Trading was moderate chiefly for prompt delivery. Deliveries against contracts were in good request. No. 1 Brazilian oil nominal at 18¾c. per pound, tankcars, New York for prompt delivery. Domestic grades were unchanged and steady.

Imports of castor beans and castor oil at New York and Philadelphia last week were as follows:

	Pounds	
	Castor Beans	Castor Oil
Last week	10.950	1.134.000
Previous week	.....	660.000
Corresponding week, 1959	555.000	2.186.000
Total this year	3.353.450	65.964.000
Corresponding period, 1959	19.839.700	73.498.000

Coconut—Crude was steadier and slightly higher. Shipments were raised to 12¼c. per pound, tankcars, f.o.b. Pacific coast, immediate and 12⅛c. October, same basis. The New York market was also steadier at 14c. per pound, tankcars, prompt delivery.

Corn—Buying interest was limited to actual needs. Crude was easier. Light sales took place at 12⅛c. per pound, tankcars, f.o.b., mills, prompt devliery. Refined oil was lower at 15.85c. per pound, tankcars, New York basis.

Cottonseed—Futures market was a dull and narrow affair last week on the New York Produce Exchange. Trading was light, reflecting the Jewish holidays. Prices were steady due to increased trading in crude oil and closed about unchanged. September tenders increased to 8 contracts to date. Cash oil was steady with crude. Refined salad was unchanged at 12½c. per pound, tankcars, New York, prompt delivery.

Improved trading was noted in crude oil. Sales took place at 9⅜c. to 9½c. per pound, tankcars, Georgia and Carolinas and 9¼c., Mississippi Valley Alabama and 9¼c. Texas.

Linseed—Lower flaxseed market was reflected in oil. Crushers reduced prices ⅛c. per pound. New business was light, while deliveries against current contracts continued in good request. Raw oil declined to 12½c. per pound, tankcars, Minneapolis, September-December delivery and to 13.61c., per pound, f.o.b. New York.

Oiticica — Good movement continued against former orders, while new business was spotty and confined to actual needs. Tankcars were maintained at 14c. per pound, New York, prompt delivery. Drums were unchanged at 16c. to 16½c. per pound, spot, depending upon quantity.

Olive—Hand to mouth buying continued on spot and for shipment from primary sources. Spanish oil was quoted at $53 to $54 per 100 kilos, drums, f.o.b. ports, as to quality. Supplies on spot were moved at $2.30 to $2.35 per gallon, drums, duty paid, according to quantity.

Palm—Small lots were in fair demand on the spot. Prices were unchanged and steady. Drums ranged from 14.40c. to 15.40c. per pound spot, as to quantity. Tankcars were unchanged at 11½c., spot.

Peanut—This market was easier and fractionally lower. Buying interest was slow. Crude was available at 15½c. per pound, tankcars, f.o.b. mills, prompt shipment. Refined oil was offered at 18¾c. per pound, tankcars, New York, prompt delivery.

Safflower—New crop oil was quoted at 15¼c. per pound, tankcars, delivered East for October-December shipment. Tanks for the balance of September were unchanged at 15.55c., same basis.

Soybean—Crude was quiet and steady. Tankcars were nominal at 8⅞c. per pound, Decatur, unrestricted, prompt shipment. Refined salad was unchanged at 10.90c., tankcars, New York basis.

The Department of Agriculture has announced a supplemental agreement between the United States and Korea for the sale of about 5.7 million pounds of soybean or cottonseed oil under PL 480. Purchase authorizations will be announced later.

The Department of Agriculture has announced the sales policy for CCC-owned soybeans during the Oct. 1960-Sept. 1961 period.

Beginning Oct. 1, 1960 and through May 31, 1961, soybeans will be sold at the market price but not less than 105 percent of the current (1960) county soybean support price plus carrying charges. Charges to be added include a 5c. per bushel receiving charge and a monthly charge of 1.65c. per bushel to cover storage (1.11c.) and interest (0.54c.). The 1.65c. charge, which is cumulative, will be added to the minimum price each month beginning with Oct. 1, 1960. The county support rate for grade No. 2 soybeans at the point of storage will be used in determining the minimum price. Value of any transit billing will be added. Market discounts for quality factors will apply.

USDA officials pointed out that uncommitted CCC stocks of approximately 9.6 million bushels as of mid-September are much reduced from a year earlier, when at the end of September stocks approximated 41.9 million bushels.

Following is the schedule of monthly charges that will be added to 105 per-

Cottonseed Oil Futures

Sales and prices of prime summer yellow cottonseed oil futures in tankcars (60,000 pounds) on the N. Y. Produce Exchange for the week ended Friday, September 23, follow:

	Sales	High	Low	Close
		Cents per Pound		
Oct.	50	11.56	11.34	11.41S
Dec.	115	11.48	11.33	11.38S
March	176	11.60	11.44	11.52S
May	121	11.65	11.46	11.53S
July	71	11.67	11.50	11.56S

Total sales and switches, 533 contracts.

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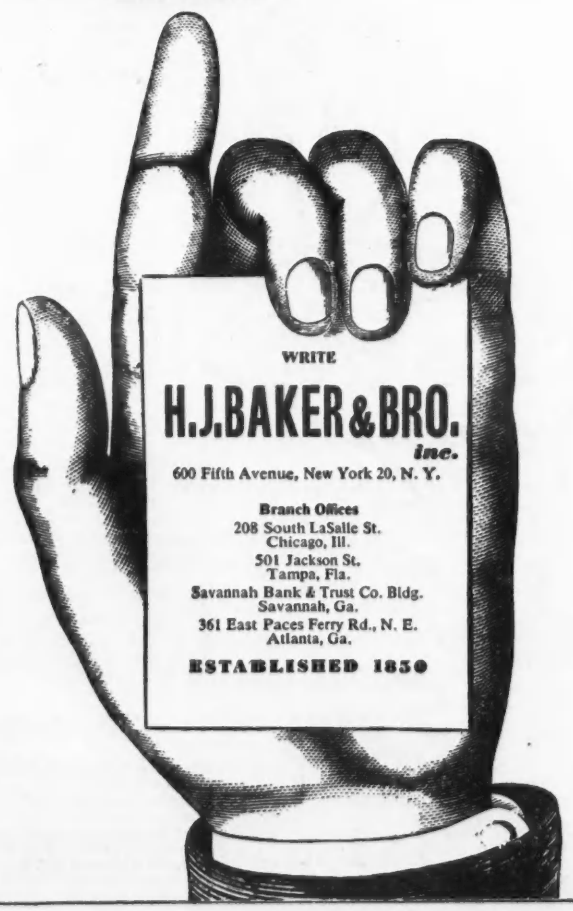


Oils, Fats and Waxes

cent of the county soybean support price to determine the minimum price:

	Per Bu.
Oct. 1960	6.65c.
Nov. 1960	8.30
Dec. 1960	9.95
Jan. 1961	11.60
Feb. 1961	13.25
Mar. 1961	14.90
Apr. 1961	16.55
May 1961	18.20

Tung—Easy tone prevailed due to quiet demand. Tankcars were nominal at 22½c. to 22¾c. per pound, New York, prompt delivery, depending upon seller. Drums were quoted at 24c. to 24½c. per pound, spot, according to quantity.

Miscellaneous

Cocoa Butter—This market was firmer and 1c. per pound higher. Spot stocks ranged from 59c. to 64c. per pound, depending upon quantity.

Copra—Firmer tone developed for shipment. Prompt was advanced to $165 per ton, c.i.f. Pacific coast, following trading at $162.50.

Flaxseed—Weakness persisted in this market, crushers reducing bids another 5c. a bushel under pressure of heavy new-crop offerings. Bids were at $2.90 a bushel, spot and to-arrive basis, only a few cars offered on the spot market each day. Nineteen cars traded on spot basis, while to-arrive bookings amounted to 187 cars and 284,000 bushels. Arrivals for all accounts totaled 581 cars, against 516 a year ago.

Flaxseed crushed in August, the first month of the 1960-61 season, amounted to 909,812 bushels, it was reported by the National Flaxseed Processors Association.

Fats and Greases

Greases—Quite trading weakened the market and prices were slightly lower. Choice was lower at 7⅛c. to 7¼c. per pound, tankcars, delivered and yellow, 4¾c. to 4⅞c., same basis.

Lard—Market was steady and slightly higher. Cash lard was raised to 9¼c. per pound, drums, Chicago.

Tallow—Slow demand for domestic and export unsettled the market. Prices were off ⅛c. per pound. Bleachable fancy was moved at 5⅝c. per pound, tankcars, delivered. Prime was lower at 5⅜c.; specialy, 5⅛c. and guaranteed fancy, 5⅞c., same basis. Export business was inactive. Guaranteed fancy was nominal at 6⅜c., bulk, f.o.b. and 7⅜c., drums, f.a.s.

Cake and Meal

Cottonseed Meal—Local demand continued to absorb new meal as fast as produced. Prices were unchanged and steady. Meal 41 percent was held at $57 per ton, sacked Mississippi Valley area; $58, Alabama, ond $59, Georgia-Carolinas.

Linseed Meal—This market failed to display any sustained strength, prices losing early gains to finish 50c. lower. Production was heavy and supplies more than ample to meet domestic shipping directions. Shipments against previous export contracts prevented surpluses from accumulating. Re-sale meal was available at 50c. under crusher quotations. Extracted meal, 34 percent was quoted at $50 a ton, bulk, in carlots, f.o.b., Minneapolis, for prompt delivery; $52, October, and $53 for November-December. Old process expeller was steady at $57 for September; $58, October, and $59.50, November-December.

Soybean Meal—Easiness persisted in this market, prices in most markets 50c. to $1 lower. Principal exception was in the Northwest, where demand was excellent. Prices were steady in this area, advances, prevented by offerings from the Southwest on a shipping basis. Local strength also brought supplies out of storage. Meal, 44 percent was lower at $52 a ton, unrestricted, bulk, Decatur, for prompt shipment.

Waxes, Vegetable

Consumer demand for vegetable waxes continued restricted to actual needs. Prices for spot delivery and held at unchanged levels. Crude beeswax was the firmest on the list because of scarcity of stocks on spot and limited offers for shipment from sources. This kept refined grades on a firm basis, despite quiet demand.

Carnauba grades demand continued light and spotty. No. 3 Ceara crude was offered at 72c. to 73c. per pound, spot depending upon quantity and No. 3 Parnahyba at 1c. more. Yellows also were unchanged with No. 1 Ceara ranging from $1 to $1.02 per pound, spot and Parnahyba, 1c. higher.

Candelilla wax was quiet. Crude was generally quoted at 55c. to 56c. per pound, spot and refined 60c. to 62c., depending upon quantity. Stocks on spot were not heavy, but adequate to cover current demand.

Slackened demand for ouricury resulted in a easier tone. With business slow crude was more or less nominal at 54c. to 55c., per pound, spot, depending upon quantity and seller.

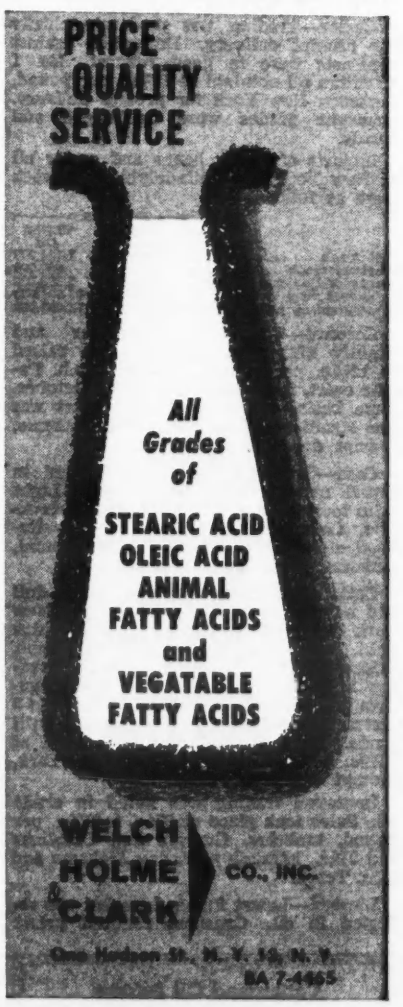
Water Pollution

—Continued from page 5

into the waterways within the metropolitan area of Chicago, and the pollutional effects of these wastes in the waterways in Chicago. Laboratory facilities and staff are being organized to conduct the project. A forty-man staff of engineers, chemists, biologists, and other scientists and technicians is being assembled.

Project headquarters will be in Chicago, under the direction of the Public Health Service's Division of Water Supply and Pollution Control. William Q. Kehr, Public Health Service Engineer, is project director. The overall project is being coordinated by H. W. Poston, water program director of the Regional Office of the Public Health Service in Chicago.

A Special Master of the Supreme Court is now conducting hearings in cases which concern the use of Lake Michigan water and to which the States of Wisconsin, Michigan, Illinois, Minnesota, New York, Pennsylvania and Ohio and the United States are parties. The study is being planned so that data gathered in the first phases will assist the court in making its decisions.



WARWICK WAXES

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Petroleum Derivatives

Firm supply tone once more characterizes aromatic solvents in reports from the trade. Benzene remains tight. Immediate relief is dim as hopes are pinned on added facilities due to come on stream next year. Increased supply in '61 is estimated at a torrential 206 million gallons by one market authority. Until this material does become available consumers will be forced to continue aggressive buying action in order to maintain production schedules.

Toluene also displays a firm supply posture due in part to demand for benzene. Calls for use of toluene as feedstock for "Hydeal" conversion to benzene is on the increase with at least one unit on stream and others under construction.

Of interest to solvent producers in gauging the state of industrial production—

- Auto output at a three month high —not too much encouragement here for much of the three month comparison period includes tail end of '60 production and downtime in preparation for '61 models.
- Railroad freight loadings last week were 3.7 percent higher than the same week in strike ridden '59 but 10.3 percent below 1958—considered a normal period for comparison.
- On the optimistic side some appliance manufacturers—a depressed area for much of the year—are reported to be going back into production evidently confident that the seasonal sales spurt of white goods will again occur between Thanksgiving and Christmas.

The amount of domestic crude oil that will be consumed or exported in October, 1960 is estimated at 6,785,000 barrels a day by the Bureau of Mines, compared with 6,980,000 barrels forecast for September, 1960.

The forecast includes estimates of a total gasoline demand of 4,290,000 barrels a day in October, a gasoline yield of 45.5 percent, and total crude runs of 7,775,000 barrels daily. Total gasoline demand forecast for October is an 8.5 percent increase over demand during the same month last year.

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	Sept. 25, 1959
103.74	103. 74	103.74	103.04

For Current Prices see Page 10

Aromatic Solvents

Benzene—Overall supply of this vital chemical continues to be tight according to trade reports.

Petroleum suppliers are generating material at an accelerated pace in order to take up the slack left by lagging coke-oven production. Still, inventories are reported low and manufacturers dependent upon benzene as a basic building material are showing deepening concern over the shortage.

Relief of the protracted tight supply situation appears to depend on the speed of construction gangs busily engaged in erecting benzene plants in the Gulf region. One observer last week estimated that 206 million gallons more benzene capacity will come on stream next year alone.

Contract price remains at 34c. a gallon.

Toluene—A new phase in marketing conditions for this solvent may be augured by such recent trends as:

- Suppliers moving toluene at higher wholesale prices in the Gulf area.
- Increased conversion of toluene into benzene via "Hydeal" units.

Suppliers have discovered that a marginal increase in wholesale prices in the Gulf region has not met with adverse customer reaction. One supplier reports two large lots moved at the higher price without a murmur of buyer resistance.

Why do suppliers choose to sell at wholesale prices in the Gulf rather than at higher prices elsewhere?

Answer is to be found in freight costs to midwest and northern industrial areas, costs which eat up the difference in price between wholesale and domestic retail levels.

The increasing number of "Hydeal" units on stream or planned means that demand for toluene in the areas where these units are, or will be, located is bound to be great. That area is the Gulf region.

What is developing apparently is a situation conducive to price increases both at wholesale and domestic levels.

At domestic levels because suppliers have found it more profitable to move material in the Gulf area at a better margin than can be found in industrial areas elsewhere.

Wholesale price increases have already been accepted by some consumrs and the demand soon to be created by "Hydeal" units will have a further tightening effect on the market.

Xylene-Trade sources report this area of the market to be very quiet.

No further price cutting has been detected of the nature which occured earlier this year in Cleveland.

Comments from the trade indicate the competitive situation has lessened somewhat due to decreased industrial activity in consuming regions.

Prices are unchanged.

Crude Oil Stocks

Stocks of domestic and foreign crude petroleum at the close of the week ended Sept. 10 totaled 227,787,000 barrels, lowest figures since Oct. 16, 1948, according to data reported by the Bureau of Mines. Compared with the total of 232,569,000 barrels for the preceding week, this represents a decrease of 4,782,000 barrels, comprising a decrease of 3,299,000 barrels in stocks of domestic crude and a decrease of 1,483,000 barrels in stock of foreign crude.

LPG's

Butane-Production in the period August 16-31 totaled 79,151,000 gallons. Output in the same period last year was lower at 75,986,000 gallons.

Stocks on August 31 were recorded at 370,661,000 gallons. On the same date last year inventory showed 249,081,000 gallons.

Butane-Proprane Mix-Output in the period August 16-31 totaled 36,306,000 gallons as compared with 34,305,000 gallons in the same period last year.

Inventory on August 31 was 25,177,000 gallons. On the same date last year stocks were computed to be 49,673,000 gallons.

Ethane-ethylene-Production in the last two weeks of August totaled 24,772,000 gallons. During the same period last year 24,775,000 gallons were turned out.

Stocks on August 31 were 913,000 gallons, the same figure as recorded last year on the same date.

Iso-butane-Output in the period August 16-31 totaled 35,996,000 gallons. Production in the same period last year was 27,218,000 gallons.

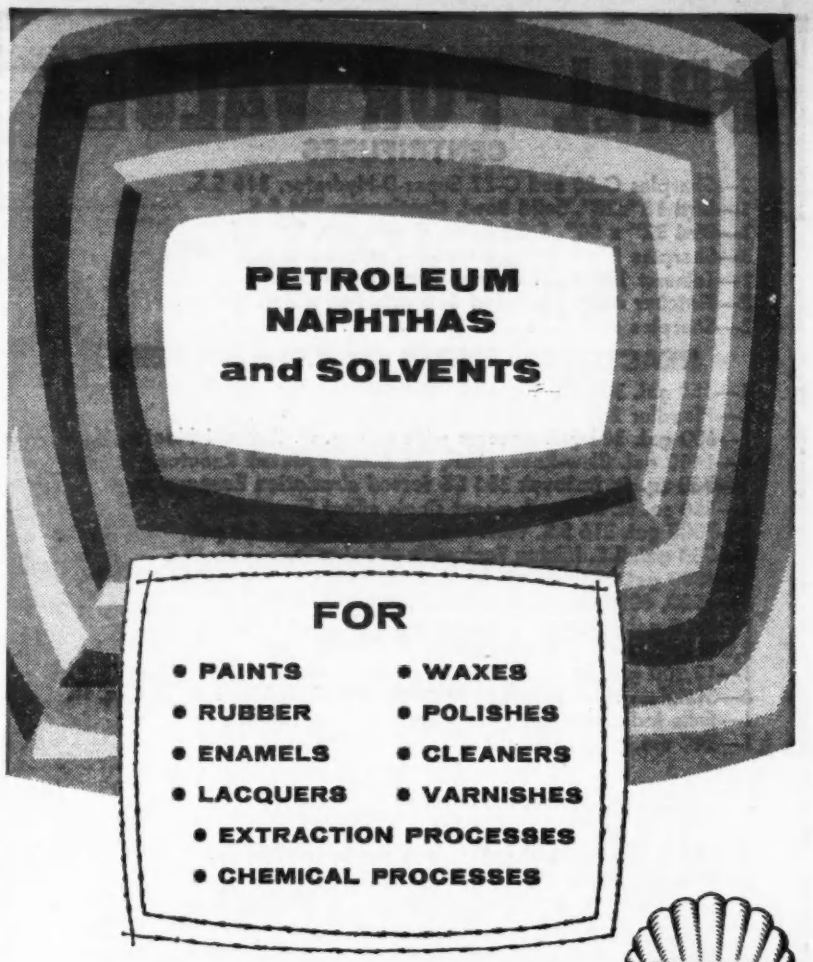
Stocks on August 31 amounted to 34,582,000 gallons as compared with 49,673,000 gallons on the same date last year.

Propane-Production in the period August 16-31 was 145,781,000 gallons. In the same period last year 148,096,000 gallons were turned out.

Stocks on August 31 stood at 643,489,000 gallons as compared with 697,762,000 gallons on the same date last year.

Miscellaneous

Current reports of the industry for the week ended September 9, 1960 indicate an increase in crude-oil production and a decrease in crude runs. According to the API, the daily average output of crude (including lease condensate) was 6,847,000 barrels, an increase of 22,000 barrels from the preceding week. Daily average crude runs to stills of 8,271,000 barrels were 23,000 barrels below the preceding week, and 90,000 barrels above the week ended September 11, 1959. Runs of foreign crude amounted to 1,085,000 barrels daily, compared with 1,022,000 barrels in the preceding week. For the four-week period ending September 9, 1960 crude oil production averaged 6,840,000 barrels daily, and crude runs to stills averaged 8,218,000 barrels daily with runs of foreign crude averaging 1,059,000 barrels daily.



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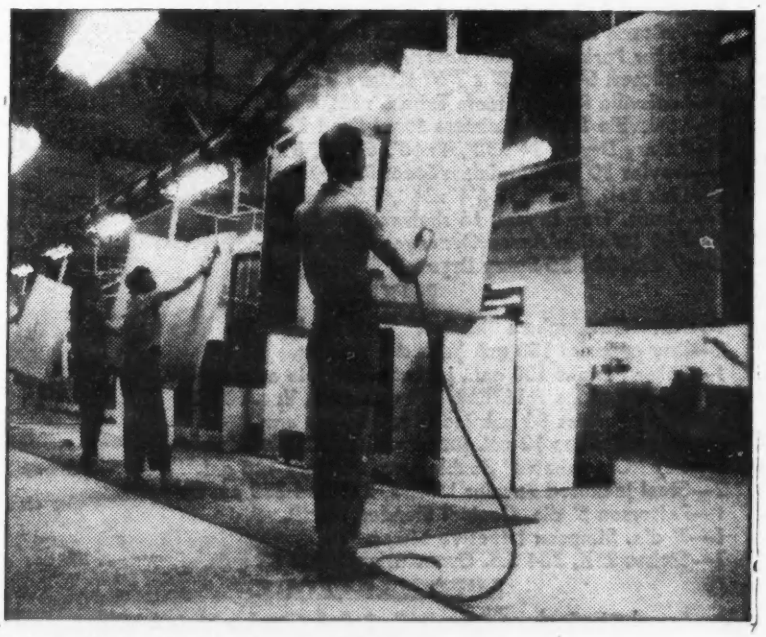

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2—Sharples C-20 and C-27 Super-D-Hydrator, 316 S.S.
1—Bird 18"x28", Solid Bowl, Continuous, 304 S.S.
1—Bird 32" x 50", Solid Bowl, Continuous, 316 S.S.
3—Sharples PY14, PN14 Super-D-Canters 316 S.S.
1—Tolhurst 26" susp. Rubber Imperforate Basket.
2—Fletcher 48" Suspended 316 S.S. Perforated Basket.
2—Sharples #16, 304 S.S., 3 HP motor.

REACTORS — EVAPS — CONDS — TANKS

1—150 gal. 304 S.S. jacketed agitated Reactor.
3—Pfaudler 200 gal. glass lined jacketed Kettles.
1—650 gal. 304 S.S. Reactor with 100 sq. ft. Bayonet Heater.
1—1400 gal. Blaw-Knox, steel, jacketed, agitated Reactor.
1—700 sq. ft. Buflovak 304 SS forced circulation Evaporator.
1—550 sq. ft. Buflovak monel single effect Evaporator.
1—7500 gal. 316 S.S. Vert. Storage Tank, 7'x25', 50 psi.
1—500 gal. S.S. Mixing Tank with nickel coils.
1—4000 gal. Haveg Vert. Tank 8'x12'.
6—7500, 6000 and 2000 gal. Rubber Lined Tanks.
1—1500 gal. Stainless Pressure Tank, 5'x10', 90#.
2,000 gal. horiz. 304 S.S. tank 5' x 12'.
1—12,000 gal. horiz. steel Pressure Tank, 7'6"x36', 200 psi.
6—Stainless Heat Exchangers; 1220, 786, 536, 370, 315, 250 sq. ft.
1—Falls Industries 100 sq. ft. Karbate Condensor.
1—24" dia. x 35', 304 S.S. Bubble Cap Column.

FILTERS

1—#5 Sweetland Filter 304 S.S. 120 sq. ft.
1—Oliver 6' dia. Horizontal Filter, 316 S.S.
1—Oliver 5' x 6' Steel Rotary Vacuum Precoat Filter.
1—U.S. 200 sq. ft. 304 S.S. Auto-Jet Filter.
1—Oliver 5'3"x8' Steel Rotary Vacuum, vaportite housing.
1—Eimco 18" x 12" 316 S.S. Rotary Vacuum Filter with pumps and piping.
1—Oliver 3' x 2' 347 S.S. Rotary Vacuum Filter.
1—Feinc 5'x6' Stainless Steel Rotary Vacuum Filter.
2—#10 Sweetland Filters, 27 leaves, 4" centers, 250 sq. ft.

DRYERS

1—Buflovak Vacuum Shelf with 20—60"x80" shelves.
1—Devine Vacuum Shelf with 19—59"x78" shelves.
1—Devine Vacuum Shelf with 10—40"x43" shelves.
2—Buflovak 42"x120", atmospheric double drum Dryers, complete.
2—Devine 4'x9', single drum, atmospheric.
1—Buflovak 3'x10' Rotary Vacuum Dryer.
1—Baker Perkins 5'6"x6' Rotary Vacuum Dryer.
2—Buflovak 5' x 30', 3' x 7'6" Rotary Vacuum Dryers 316 S.S.
2—Louisville Rotary Steam Tube 6'x25', 6'x50'.
2—Louisville 8'x50' Stainless Steel lined Rotary Dryers.
9—Rotary Dryers 34"x30', 4'x40', 6'x50', 6'x60', 7'x80', 8'x87'.
1—Traylor 30"x18' Stainless Steel Rotary Dryer.
2—Link Belt, 7'5"x25', 6'4"x24", S.S. Louvre Dryers.
2—Atmos. Tray Dryers, 16 shelves, 40"x24".
1—P&S 10' wide Apron Conveyor Dryer 48' long.
1—4' dia. 304 SS Spray Dryer.

MIXERS

1—Farrel-Birmingham "Midget" Banbury Mixer.
2—Day Imperial 150 gal. jktd. double arm.
1—Baker Perkins 100 gal., jacketed, double arm, 30 HP.
1—Baker Perkins #16TRM, 150 gal. jktd., Vac. 60 HP.
1—Baker Perkins 50 gal. jacketed, double arm.
1—Baker Perkins 10 gal. jacketed 304 S.S. double arm.
5—Day "Cincinnatus" double arm, 250 and 100 gal.
2—Steel jacketed Powder Mixers, 225 and 350 cu. ft.
1—Patterson 6' dia. Conical Blender 15 HP.
1—3' dia. Simpson Intensive Mixer.
1—Stokes 21K, 304 S.S. Granulating Mixer 82 gals.

MISCELLANEOUS

1—Farrel Birmingham, 8" x 16", 2 Roll Chrome Plated Mill.
3—Mikro Pulverizers 1 SH, 1 SI and Bantam.
2—1SH, 1SI Mikro, Pulverizers, 3 HP.
3—Abbe 2½' x 3' porcelain lined Pebble Mill XP motor.
1—Raymond 10' dia. Single Whizzer Separator.
1—Raymond 10" vert Mill, 10 HP.
1—No. 1 Ball & Jewell Rotary Cutter.
1—#18 Cumberland Rotary Cutter.
3—Swenson Walker Continuous Crystallizers, 24" x 30' sections.
1—#24 Rotex Sifter, 20" x 64", Quadruple deck.
5—Day Roball Sifters 40" x 120" single and double deck.
1—#81 Day Roball Sifter 40" x 120" single deck.
3—Nash H6 Vacuum Pumps.
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1—#2 Sweetland Filter, 17 leaves.
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1—#3 Banbury Mixer with 75 h.p. motor.
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1—Abbe #8 Steel Ball Mill, motor driven.
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1—10 h.p. m.d. Agitator, 100 r.p.m.

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1—International Ball Mill, porcelain lined, 48" x 60", 15 H.P. Unibrake Motor, 2-drums balls. Like new.
1—Schutz-O'Neill Pulverizer 22", Style B.
1—Abbe Pebble Mill 5' x 22'.
1—Sparkler Filter 33-S-28, with Scavenger Plate, steam jacketed.
1—2 qt. Sigma Blade S.S. Mixer.
1—250 gal. Kettle, nickel jacket, 100#.
1—Bartlett Hog Mill with 7½ H.P. motor.
1—430 S.S. Tank 3000 gal. vert. ¾ plate, with 2 pc. cover.
2—Vacuum Pumps, Gardner-Denver, 5" bore 4" stroke, with 7-½ H.P. motors.
1—#316 S.S. Reactor 265 gal. jkt.
2—Twin Screw Mixers 120 gal. jkt.
2—Aetna Water Stills 20 gph, new.

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1—J. H. Day 75 gallon Sigma Mixer. Imperial type, power tilt.
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7—Sparkler Filters. Models 404, 17-6 and 17-12 with pumps.
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Complete with ACCESSORIES

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5250—Readco Jktd. Stainless Steel Dbl., Arm Mixer; 15 gal.; 15 HP.
M26 B4—J. H. Day Imperial Stainless Steel 30 gal. Vacuum Mixer with 30 HP XPL Motor.
M25 401—Baker Perkins Stainless Steel Unjacketed Mixer; S.S. 33" 32" x 36"; 20 HP Motor.
5223 C-3-4—Two Lehmann Amalgamators; Stainless Lined; 32" x 44" x 36"; Stainless Arm; 7½ HP.
5070 F4—Stainless Steel Double Arm Vacuum Mixer; 150 gal.; 44" x 44" x 36" with cored blades; 40 HP
M25-501—J. H. Day Stainless 250 gal. Jktd. Mixer with Sigma arms; geared both ends.
4702 B1—J. H. Day Cincinnatus Stainless Steel 300 gal. Jacketed Double Arm Mixer.
5070 F1-2—Stainless Lined Double Sigma Vacuum Mixers 300 gal. 56" x 50" x 44"; with 60 HP Motors.
5164 A1—Patterson-Kelly Stainless Twin Shell Blender; 150 cu. ft. 60" diam. 10 HP XPL Motor.
1793 D8—J. H. Day 2½ gal. Pony Mixer; Stainless Paddles and Can; ½ HP motor.
4305 P3—Baker Perkins Cascade Mixer Installation; fully jacketed 250 PSI; Type 316 Stainless.

FILTERS

F15-818—Bird Young 12" x 16" Stainless Rotary Vacuum Filter.
3317—Bird Young Rotary Vacuum Filter; 4' x 4'; Stainless Screens.
5122 M4—Oliver Pressure Pre-Coat Filter 5'3" x 8' in Stainless.
5147 S1-2—Oliver Pre-Coat Panel Type Acid Resistant Vac. Filters 8' x 8' and 8' x 10' complete.
4692 D1-2—Two Oliver Monel Precoat Continuous Rotary Pressure Filters, 3' x 2' with all accessories.
2729—Oliver Dorrco Rot. Vac. Filter 6' x 3' with nickel parts.
F15-193—Stainless Lined 5'3" x 8' Oliver Cont. Vac. Filter Complete.
4685 B1—Feinc Stainless Rot. Vac. Filter; 5' x 6'; String Discharge.
4870 N2—Sparkler Stainless Steel Filter; Model No. 14-S-4.
5092 G4—Sparkler Mild Steel Filter Model 33-14.
5146—Sparkler Jacketed Filter Model 33 S 17; scavenger plate.
F13-803—Sparkler Stainless Filter #33S 28 with Scavenger.
4931 L2-3—Two Alsop Stainless Filters Model SD8; 250 GPH complete with Pump and Motor.

COLLOID MILLS
(Homogenizers, Viscolizers, etc.)

3961 E1-7—Premier Stainless Colloid Mills Type U3; 6"; 15 HP motors.
4827 N3—Cherry Burrell Stainless Sanitary Homogenizer Size 1500; with 25 HP Motor.
4703 G2—Chemicolloid Stainless Steel Colloid Mill Model A 15 with 15 HP Motor; 3525 RPM.
4510—Marco Stainless Homogenizer No. 400 Capacity 750 GPH.
H2 S300—Fitzpatrick Stainless Tritulating Homogenizer 5" Vert. Screw; Jacketed; 3 HP Motor.

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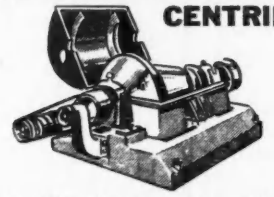

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4871 D2—Vertical Stainless Decerator Tank; 18" x 48" Jktd.; good for Full Vacuum; cone bottom.
4542—Stainless Steel 60 gal. ASME Reactor; 20" x 34".
4955 M13—Stainless Lined 60 gal. Reactor 22½" x 34" with Stainless Coils and Agitator.
4344 H5—Stainless Lined Vertical Pressure Vessel 4' x 4' dished heads; 24" manhole; Internal Heating Coil.
4954 T5—Patterson-Kelley Stainless Steel Percolator or Extractor 200 gal. 28" x 76"; ASME coded.
5243—Struthers-Wells Stainless Steel Reactor Jacketed 400 gal.—Agitated 7½ HP.
5284—Patterson Foundry STAINLESS Reactor; 400 gal. Jacketed 30#; 30# Int. ASME; Agitated.
3799V-1—Lancaster Stainless Lined Rotary Reactor; Jktd.; 50" x 17'4" 300 PSI internal.
3870M-2—Mojonnier Stainless Vacuum Pan 3' x 10'.
4627 H1—Mojonnier Stainless Vacuum Pan; 6' x 12'; Vertical Counter Current S.S. Condenser; 261 sq. ft.
4767 W1—Harris Stainless Vacuum Pan 6' diameter with coils, barometric condenser and accessories.
5051—Blaw Knox Stainless Lab. Reactor; 5 gal.; Agtd.; 150 PSI ASME.
5048 D1-2-3—Struthers Wells Type 316 Stainless 2000 gal. Vertical Jacketed, Agtd. Reactors.
5255 F1-2—Two MONEL Reactors 2800 gal. 6'8" x 13' with ASME Jacket and Internal 175 PSI; Turbine Agitators.

EVAPORATORS — KETTLES — TANKS

3750—Zaremba Double Effect INCONEL Evaporator with calandria; 430 sq. ft. of surface; with accessories.
3870 M2—Mojonnier 3' dia. S/S Calandria Evaporator; 30.5 sq. ft.
5020 S5—Vertical Stainless Lined Mixing Kettle 40 gal. 24" x 21" with Stainless Heating Coils and Agitator.
5020 S8—Stainless Lined 100 gal. Mixing Kettle; 32" x 30" with 6 turns of S/S Heating Coils and Agitator.
3340—Brand NEW Stainless Steel Kettles good for 100# always in New York stock; sizes up to 500 gal.
3994 K4—Stainless Steel Vacuum Still; Coil Htd. 755 gal. 4'6" x 6'; with Aluminum Column.
4840 B36—Electrically Heated 800 gal. Stainless Steel Kettle 60" x 60".
4886 D6—Stainless Steel 500 gal. Vertical Jacketed Agitated Kettle 48" x 67".
4840 B37—Stainless Vertical Kettle 5' x 8'9", 1300 gal. set in a cooling jacket.
5048 D1-2—Struthers Wells Type 316 Stainless Vertical Mixing Kettles, 2000 gal. 6' x 10' Jktd. and Agitated.
5128 M1-2—Two Pfaudler Stainless Steel Jacketed Evaporating Dishes; 6' x 30".
4737 A15—800 gal. closed S/S Tank; 51" x 118"; Coned Bottom; 24" Manhole.
5123 C1-2—Two Horizontal Type "C" Versators in Type 316 Stainless with 20 H.P. Motors.

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Buflovak Stainless Steel Thermo Recompression Sanitary Evaporator; complete all accessories.

Stainless Steel Laboratory Drum Dryer 8"x11½".

Feinc Stainless Steel Rotary Vac. Filter 3'x1' with accessories.

4 Pressure Filters in Type 316 Stainless Steel 30"x56"; 1000 sq. ft. filter area.

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Baker Perkins 5 gal. Double Arm Jacketed Mixer, Type UNE-7 with Pressure Cover; 30 HP Motor.

Devine 20 Shelf Double Door Vacuum Chamber Dryer Model No. 36; complete with accessories.

2 Sharples Stainless Steel Super-D-Canters Model No. PN 14.

Girdler Stainless Steel Votator Model 41 S. Struthers Wells Stainless Steel Heat Exchanger 8 Passes; 12' long; 990 sq. ft.

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CLARIFIERS — SEPARATORS

4926—Squier 30" Suspended Stainless Steel Centrifugal with perforate basket.
5190 D4—A. T. & M. 30" Susp. Centrifuge in Stainless; 2 Speed.
4093 B11—A. T. & M. Susp. Centrifugal; 40" x 24"; Solid Bowl; Bot. Discharge.
5230 L1—Western States Model UD Centrifugal in Type 316 Stainless; 36" x 20"; Vapor Tite; Automatic Loading
4331—Telhurst Suspended Self Bal. MONEL 40" Centrifuge; Rub. Lnd. Curb 7½" HP.
C5-B200—A. T. & M. 40" Stainless Suspended Centrifugal perforate basket; bottom dump; 40 HP motor.
4750V—A. T. & M. type 316 S/S Vacuum & Pressure Hoods, 60"; link suspended; 15 HP 2 speed motor.

DRYERS — ALL TYPES

5161 B7—Bowen Stainless Steel Spray Dryer; Table Model; 30" x 32".
4055 E2—Nickel Plated Drying Drums 4' x 4'.
3303—Type 316 Stainless Drying Drum; 32" x 52".
4690—Stainless Lined Rotary Counter Current Atmospheric Dryer; 50" x 20' with Oil Burner, Combustion Chamber, etc.
4819 M4—Louisville Stainless Rotary Dryer 30" x 28'; Ind. fired.
5147 S18—Jacketed Rotary Dryer or Roaster; 42" x 12'; Monel shaft and Blades.
5260—Louisville MONEL Rotary Steam Tube Dryer; 54" x 35'.
5161 B8-9—Two Stainless Concentrators; each has Bank of 4 Rotary Vac. Continuous Jacketed Dryers, 2' x 10'; 20 HP.
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2—Bonnet 7' x 60' rotary hot-air dryers, ⅝" shell, complete.
2—Bonnet 6' x 52' rotary hot-air dryers, 5/16" shell, complete.

PRESSURE LEAF FILTERS

2—Sweetland #12, (24) 36" dia. leaves, 336 sq. ft.
6—Shriver 48" cast iron P. & F. filter presses, 50, 48 & 40 chambers, hydraulic closure.
1—Sperry 30" cast iron P. & F. filter press, 30 chambers.

PRESSES

4—Davenport #2A dewatering presses, vari-drive, motor, etc.
3—Davenport #1A dewatering press, vari-drive, motor, etc.
2—French Oil screw type extraction presses, 60 HP.

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2—Quadruple effect evaporators, calandria type, 4050 sq. ft. cast iron bodies & copper tubes. With 1230 sq. ft. horiz. copper preheaters & 2450 sq. ft. finishing pans. Total 19,900 sq. ft. each evaporator.
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18—Tubular heat exchangers, copper tubes, 1500, 1350, 1130, 637, 380, 290, 184, 176, 156 sq. ft.
2—Acme 96" dia. x 44' high copper beer still columns, (20) perforated & (4) bubble cap trays.
5—Leader 96" dia. steel rectifying columns, 44' & 51' high, bubble cap trays.

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2—DeLaval 48" multi-matic centrifugal separators.
4—Wallace & Tiernan auto. bulk-handling scales.
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2—9500 gal. horiz. steel cookers, ½" shell & dished heads.

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1—Vulcan 96" dia. x 37' high, T316 SS bubble column.
1—Vulcan 72" dia. x 46'-10" high copper bubble cap column—VACUUM.
1—Vulcan 60" dia. x 13' high T316 SS bubble cap scrubber.
2—Sharples #C-20 Super-D-Hydrators, T316 SS.
1—Sharples #16-P Super Centrif., T304 SS.
1—Struthers-Wells 630 sq. ft. Evaporator, T316 SS.
3—Worthington 160 ton steam-jet VACUUM refrigeration units, w/baro. condenser, etc.
2—Read 1800 cu. ft. weigh hoppers, T304 SS.
10—T316 SS tanks: 2750, 2500, 2300, 2250, 2100, 1900 gal.
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7—Alloy Fabricators Type 316 SS pressure vessels, 4500 gals., complete with agitators and drives, 45 psi.
2—Alloy Fabricators Type 316 SS, 4500 gals., jacketed reactors, complete with agitators and drives.
2—Alloy Fabricators Type 316 SS, 1000 gals., jacketed kettles, ⅜" material throughout.
12—Whitlock Type 316 SS pressure vessels with coils, 270 gals.
3—Type 347 SS pressure vessels with coils, 300 gals.
3—Type 316 SS mixing tanks, 6000 gals., complete with agitators and drives.
8—Acme Type 347 SS settling tanks with cone bottoms, 1000 gals.
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16—Rubber lined vertical storage tanks, 4500 gals., working pressure 45 lbs.
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7—Stainless steel condensers from 50 to 300 sq. ft.
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5—Shriver 42" x 42" wood plate and frame filter presses, complete with hydraulic closing device, 30 chambers.
7—Buflovak Type 316 SS jacketed rotary vacuum dryers, 5' x 30', complete with 25 HP explosion proof motors and drives.
3—Type 316 SS Ter-Meer continuous type centrifuges 4' dia. bowls complete with motors.
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2—Nash, Model HS-6, Hastelloy B vacuum pumps, with 25 HP motors.
3—Nash, Model HS-6, Type 316 SS vacuum pumps, with 25 HP motors.
3—Nash, Model TS-12, vacuum pumps, with motors.
1—Stokes Type 316 SS, jacketed, rotary vacuum dryer, 2' x 3'.
14—Copper jacketed mixing kettles, 3500 gals. each.
14—Copper jacketed rotary vacuum dryers, 8' x 10'.
5—American Type 316 SS blowers, Model MD, size 27".
6—200 gals., Type 316 SS vacuum receivers.
1—Fuller Type 316 SS, airveying system.
1—Aldrich Type 316 SS hydraulic triplex pump, size 2-3/4"x4", 500 psi.
1—Quimby Type 316 SS twin screw pump with 10 HP variable speed drive.
2—Powell Type 316 SS 10" hydraulically operated flanged gate valves.
2—Tyler Type 38 tandem SS Hum-Mer screens, size 42" x 9'-8".
50—Stainless steel and aluminum hoppers, all sizes.
100—Stainless steel centrifugal pumps, all makes and sizes.
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12—Type 316 SS Cyclone separators, 5'-2" x 10'-8" overall.
500 Tons of Type 316 SS pipe, fittings and valves, ranging from 2" to 6".
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12—125 HP vertical agitator drives with Philadelphia drive, output speed 15.
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2—Monel 2500 gal. jacketed autoclaves, 175# jacket, 175# internal.

2—Pfaudler glass lined jacketed reactors, complete with agitators and drives, 200 gals., each.

1—Nooter 100 gal. stainless steel reactor, complete with agitator and drive.

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1—Hersey stainless steel rotary dryer, 3' x 16'.

1—Allis Chalmers SS 6' x 50' rotary dryer complete.

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1—General American 7' x 40' rotary dryer, ⅜" welded shell.

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1—Stewart Bolling 2 roll rubber mill, 6" dia. x 12".

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1—Richmond Engineering type 316 SS, 40 cu. ft., double ribbon blender.

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25—Davis Engr. SS heat exchangers, 104, 121, 139 and 168 sq. ft., NEW.

1—Downington Type 316 SS heat exchangers, 750 sq. ft.

1—Cleveland SS double cone blender, 85 cu. ft. working capacity, complete with motor and drive.

1—Oliver SS rotary vacuum precoat filter, 3' x 4'.

1—Stokes #412F vacuum pump, complete with motor.

4—Tolhurst 40" rubber covered, center slung centrifuges, complete with perforate baskets and motors.

8—Western States 40" Type 316 SS, suspended type centrifuges, complete with perforate baskets, plows and 40 HP motors.

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1—Hersey steel hot air rotary dryer 1½' x 16'.
2—J. H. Day jacketed Imperial mixers with sigma blades, 75 and 30 gallons.
3—Sparkler 33-S-17 rubber lined filters.
3—Burrstone lined pebble mills 400, 250, 50 gallons.
1—40" suspended centrifuge with perforated rubber basket.
1—Patterson 30 gallon kneadamaster, 30 HP.
1—P K 75 cu. ft. twin shell blender.
1—Ertel type 316 stainless steel 12" filter, 15 plates and chambers.

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8—Jack. Stainless Kettles 70 to 100 gals. and 200 gals. Closed.
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3—Spiral Blenders, 800 to 2000#.
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1—Raymond #3036—3 Roll High Side Mill.
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Trade Name Chemicals

—Continued from page 49

line waxes, marketed by Warwick Wax Division of Western Petrochemical Corp., are refined products from the petroleum industry. They are characterized by high melting points and hardness as well as freedom from oil. Oil and solvent retention properties are good and the series was designed specifically for applications where these features are necessary. The company also markets **"Polymekon"** from high melting point microcrystalline petroleum waxes. Chemical treatment of the petroleum wax yields a product which exhibits properties of a resin and a wax. The **"Polymekons"** and **"Polymekon Paraffin"** emulsions are used in paper coatings, printing inks, plastics, buffing compounds and varnishes and lacquers.

In paper coatings, **"Polymekons"** increase the resistance of paraffin coatings against penetration of lactic acid and fruit juices. The product is most useful in milk cartons, cheese containers and other cartons for use at low temperatures. **"Polymekon"** in varnish type printink inks produces scratch resistant prints and makes it possible to make as many over-prints as desired, without applying varnish after each color, according to the company.

Antifoaming Agents

Foaming has always been recognized as a costly problem but was often tolerated in the past because the defoamers available were either too costly or were required in such quantities as to be adulterants. As a consequence undesirable foam prevailed in a wide variety of processes and plant operations.

However, recent years have seen the development of products such as the silicone defoamers of Dow Corning Corp., which effectively and economically control foaming at concentrations as low as one part antifoam agent per 10 million parts of foamer.

The company reports one instance where a 15 percent solution of diethanolamine solution is being used in a propane-propylene stream to remove hydrogen sulfide and carbon dioxide gases. By addition of one quart of Dow Corning silicone defoamer every three weeks into 200-barrels of circulating DEA solution, the refiner is able to avoid costly production delays due to foaming.

In another instance, a vegetable processor controls foam in graders handling 15 tons of shelled peas daily by adding 5 ounces of antifoamer to the brine. Later in the season only 20 ounces of silicone defoamer is needed to eliminate foam in processing 10 tons of shelled lima beans —notorious foamers. Foam could make it necessary to change vegetable processing brine. This would require about two hours and several hundredweight of salt, Dow Corning points out.

Other areas in which the company's **"Antifoam A"** has operated successfully include coumarone-indene resin production, liming of tall oil, filtration of fungicidal solutions, in petroleum and asphalt processing, in pickling solutions and in food and drug processing.

Since several variables are involved in any foaming problem, use concentrations will not be the same for all applications. It is suggested that 10 parts antifoam agent per million parts of foamer be used to start, and concentration increased or decreased to establish the most effective level for a given application. In addition, it is recommended that other Dow Corning silicone defoamers be tested to be sure of obtaining the best antifoam action.

The use of **"Antifoam A"** in nonstandardized foods is permissible in amounts up to 10 parts per milion under the Federal Food, Drug and Cosmetic Act as amended by the Food Additives Amendment of 1958. All the ingredients of the product at the prescribed level are sanctioned by the Federal Food and Drug Administration.

"Antifoam A" is classed as a silicone defoamer concentrate and the majority of applications are in nonaqueous systems. Dispersions up to 50 percent may be made with solvents such as amyl acetate, cyclohexane, ethyl ether, gasoline, kerosene, methylene chloride toluene, tetrachloroethylene or similar solvents.

Italian Chemical Growth Rate Leads World

—Continued from page 3

taken off. Montecatini, biggest producer of chemicals in Italy, has a program in motion at present whereby it plans to double all production within the next three to five years.

And if past growth is an indication, the industry will do just what it says. Here is an index of Italian chemical production (1953 equals 100): 1956, 148; 1957, 154; 1958, 175; 1959, 209.

Dr. Giulio Ballabio, who heads up the hydrocarbon and derivatives division of Montecatini, stresses that the Italian industry has forged ahead, not because of a favorable raw materials position, which it has not, but through a "remarkable general technical level . . . with a capacity for original ideas, particularly when of fundamental character."

Italy has thrown off the yoke of using sulfuric acid as a business barometer, Dr. Ballabio says. He points out that in recent years in Italy, sulfuric consumption has remained constant at about 2 million tons per annum, whereas other chemicals, not necessarily dependent on sulfuric, have boomed.

In particular, he refers to petrochemical production, and specifically to output of organic compounds not thought possible only fifteen years ago—a "heavy organic chemical industry."

Dr. Ballabio sounds what might be a death knell for US exports of chemicals to Italy. Referring to the Italian commercial imbalance in chemicals, he reports the following:

In 1956, the negative balance of trade was $56 million. In 1957, it declined to $40.5 million; in 1958, $32.4 million, and in 1959, $13 million.

In what areas does Italy shine? Plastics production is one example. Total plastics output in 1953 was 52,000 tons. In 1959, production was five times that figure.

Italy's Plastics Output

1959	253,000 tons
1958	180,000 tons
1957	149,000 tons
1956	111,000 tons
1955	95,000 tons
1954	78,000 tons
1953	52,000 tons

Dr. Ballabio points out that the first plant for polyvinyl chloride outside Germany was built in Italy back in 1936, with a capacity of 1,200 tons a year.

Today this product alone is produced in Italy at the rate of a whopping 180,000 tons annually. These amazing advances in plastics in Italy have been made, Dr. Ballabio emphasizes, despite the fact the per capita consumption of plastics in that country is still lower than other more developed countries.

And the industry won't rest on its laurels. Spurred by polymer research under the leadership of Dr. Giulio Natta, polyolefins output is expected to jump considerably.

Montecatini is putting up a petrochemical plant at Brindisi, Italy, capable of processing more than 1.5 million tons of crude oil annually.

This plant—called by Dr. Ballabio the most important in Europe—will come on stream in 1962. Products will include:

Olefins, polymers and copolymers (polyethylenes, isotactic propropylenes, polybutylene, polybutadienes) and a wide range of chemical products including solvents, aromatics, aldehydes, alcohols and plasticizers.

And if plastics have shown a remarkable growth in Italy since 1953, synthetic fibers have done even better — jumping more than ten-fold in volume during that time.

Italy's Fibers Growth

1959	50.0 million lbs.
1958	32.5 million lbs.
1957	23.2 million lbs.
1956	18.0 million lbs.
1955	12.3 million lbs.
1954	9.7 million lbs.
1953	4.6 million lbs.

Remember when E. I. duPont de Nemours & Co. had the polyamide fibers field all to itself? Dr. Ballabio tells us that in Italy today there are no less than six producers of polyamides.

Further, Montecatini looms on the horizon as a future competitor for many other synthetics. Reason: Early this year the company put on stream a plant at Terni to produce isotactic polypropylene fiber.

Trade-marked "Meraklon," the material may be used pure or blended with all natural fibers. The key advantage: low cost.

In the synthetic rubber field, Dr. Ballabio tells of two-fold developments: for traditional materials and for new polymers.

In the traditional SBR field, ANIC is operating in Ravenna with an annual capacity of 80,000 tons. It's more than likely the company will tack on another 10,000 tons of capacity by 1961.

In the field of new products, here again it's Montecatini leading the way, with research and development based on Dr. Natta's discoveries. There are two promising paths for the industry to follow:

- Ethylene-propylene copolymers, tradenamed "Dutral," which are now being made on semi-commercial scale and have remarkable aging properties, among others. Commercial output will soon begin at the Brindisi complex.
- Stereo-regular polymers based on cis-4-polyzutadiene. Chemically speaking, it's the close relative of natural rubber, which is formed by macromolecules of cis-4-polyisoprene.

Why Stereo-Regular Polymers Attract

This field looks very attractive to the Italian industry, chiefly because of butadiene—which is less expensive and easily available.

Italy has done well in the fertilizer field as well during the past several years. Phosphate fertilizer output reached 925,000 metric tons in 1959.

In nitrogen output, Italy ranks seventh among producing nations (the first six: US, USSR, West Germany, Japan, United Kingdom and France).

Present Italian nitrogen capacity is about 750,000 tons a year. Consumption at home is only about half that figure. This has caused gradual price decreases on the domestic market.

Here again, Ballabio toots the horn for Italian know-how in nitrogen fixation, citing the Fauser-Montecatini and Casale processes.

One thing these technological achievements have done is to lower the cost of 46 percent urea until it is directly competitive with other, lower-content, nitrogen

—Continued on page 69

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Coatings Materials

—*Continued from page 57*

Asbestos textiles used principally in heavy industry continues to feel the pinch in the reduction in demand caused by steel's low rate of output. High pressure insulation orders are reported to have increased slightly during the past month although prices are reported to be on the competitive side. The outlook for the next quarter appears favorable for this type of asbestos material.

Casein—Market for casein showed little improvement for the week ended September 23. Quotations for Argentine casein slipped ⅛c. per pound, with the latest quote in the range of 18⅞c. to 19⅜c. per pound. Listings for Australian were unchanged as well as those for New Zealand. No reports were available for French or Polish casein.

Fluorspar—The Bureau of Mines reports that production of fluorspar in 1959 from domestic mills and mines totaled 195,100 short tons of which 145,000 was flotation concentrate. In 1958, output was 310,600 tons of finished fluorspar, including 210,900 tons of flotation concentrate.

Fluorspar shipped from mines and mills totaled 185,100 short tons valued at $8,680,200; and comprised, by grade, 116,800 tons of acid at $6,311,400; 25,600 tons ceramic at $1,108,400; and 42,800 tons metallurgical at $1,260,300. Acid grade and metallurgical-grade shipments declined while ceramic-grade shipments increased slightly from those made in 1957. About 61 percent of the total domestic output was produced in Illinois in 1959. Shipments of fluorspar increased in Nevada and decreased in Colorado, Illinois, Kentucky, Montana, and Utah, while New Mexico reported shipments, the first since 1955.

Gypsum—Crude gypsum produced in domestic mines in the second quarter of this year totaled 2,626,204 short tons, about 8 percent lower than the corresponding quarter of 1959, according to producer's reports to the Bureau of Mines. Production of calcined gypsum declined about 3 percent during the same period.

Gains and losses among the gypsum products were irregular in the second quarter. Total sales of all uncalcined gypsum products were slightly lower in the second quarter of 1959. Industrial and building gypsum products were off 8 and 11 percent, respectively, from the corresponding period last year.

Sales of gypsum board products totaling 2.1 billion square feet were 9 perecnt below the second quarter of 1959.

Naval Stores

Pine Gum—The average price paid per standard barrel of commercial crude for the week ended September 10 was $45.20. For the previous week, the average price paid was reported at $44.40, while the price paid per barrel for a year ago this date was $29.10.

The volume of gum deliveries for the week ended Sept. 16 was reported at 17,953, including 355 loan. Deliveries for the previous week totaled 19,009 barrels, compared to the same week last year when 16,825 barrels were reported delivered. Loan at that time was 325.

The average barrel content per barrel was reported at 10.49 gallons of turpentine rosin content at 299.2 pounds. Gum grading was: 48 WW; 21 WG; 13 N; and 18 M. The weekly weighted average price for turpentine was 45.5 cents per gallon. The only weekly average reported for rosin was WW grade. That price was $17.00.

Rosin, Gum
(USDA, per 100 lbs.)

	Fri. Sep. 16	Mon. Sep. 19	Tues. Sep. 20	Wed. Sep. 21	Thurs. Sep. 22
Drums—					
G	.....	$16.60	.....	$16.50‡	.....
K	.....	.....	.....	.....	.....
N	$16.53	.....	.....	.....	.....
WG	16.85	.....	.....	.....	.....
WW	17.00	17.14	.....	17.05	.....
Bags—					
G	16.60‡	.....	.....	.....	.....
K	16.25‡	.....	.....	.....	.....
N	.....	.....	.....	.....	$16.75

Tankcars (for week ended Sept. 23)—
K or better, $15.60

Sales, USDA

1,453*	1,159*	.....	1,099*	.....‡

New York
(Per 100 lbs., c.l., Friday)
K-M, $17.75; N, $17.85; WG, $18.10; WW, $18.25

Turpentine, Gum
(USDA, per gal., 7.2 lbs.)

Price	45.6¢	.....	.....	.....	.....
Sales	20,000¶	.....	.....	.....	.....

* Drums equivalent. ‡ or better. ‡ Carlots.
¶ Gallons. § Average price.

Chemicals for Autos

—*Continued from page 5*

compounds a week earlier (OPD, 9/19/60), are the chief antagonists in this field.

Ethyl's new materials—"Ethyl Metal Deactivator" and "Ethyl Antioxidant ZDP—lift the New York company's entries in this field to a total of five.

The firm claims to have drawn first blood in the tetramethyl lead market scramble last April. A month later it introduced "Ignition Control Compound 4." This is a low cost phosphorus additive for control of spark plug fouling, preignition and rumble in gasoline engines.

Chemical constituents of the two new products are respectively, N N¹-disalicylidine propylenediamine and zinc dithiophosphate. Both are already widely used in lubricants and fuels, Ethyl says.

DuPont, as reported a week earlier, has just started commercial production of a new antiknock compound, "Tetramix." As a combination of tetraethyl, tetramethyl and mixed components, this material is said by duPont to outperform any of the less comprehensive materials on the market.

Tetramethyl lead was reduced 4 cents a pound to 90 cents, reportedly to reflect increased operating efficiency and expanding sales. Competition is just as likely to have been another factor, observers say.

Italian Chemical Growth Rate Leads World

—*Continued from page 68*

compounds such as ammonium nitrate. Thirty-four plants have been constructed for urea production around the world using the Montecatini process.

Italy's Urea Gains

	Output	Percent Gain
1959	119,000 tons	47 percent
1958	108,000 tons	33 percent
1957	90,000 tons	11 percent
1956	81,000 tons	.....

Of keen interest to American potash producers is the sudden appearance of a potash industry in Italy. Montecatini recently dug up a kainite-rich vein in Sicily. Result: Right now some 3,000 tons of schoenite and potassium sulfate per day are being produced at the site.

The plant, located at Campofranco, Sicily has only been in operation since the first quarter, but already Montecatini has plans to boost output to 7,000 per day in the near future.

Sicedison is also very interested in potash. Raw potash ores are transformed into complex fertilizers by SINCAT at Priolo.

This not only means that Italy is becoming a major potash producer—it means no more exports of potash to Italy. As Dr. Ballabio point out, "We can foresee that a considerable export stream will be soon flowing toward other countries."

Where Montecatini pretty much leads the way in Italian chemical business, several firms in West Germany dominate the largest chemical industry in Western Europe.

How German Giants Fared in 1959

Here's how some of the giants fared in 1959:

- Farbenfarbriken Bayer, AG, Leverkusen — Turnover, $585 million; export sales, $255 million; turnover per employee, $10,630.
- Badische Anilin-u. Sodafabrik of Ludwigshaven—BASF turnover, $540 million; export share, $205 million; turnover per employee, $12,380.
- Farbwerke Hoechst, AG, Frankfurt —Turnover, $530 million; export share, $170 million; turnover per head, $11,660.
- Chemische Werke Huls, AG, Marl—Turnover, $146 million; export sales, $50 million; turnover per employee, $9,830.
- Dynamit Nobel, AG, Troisdorf — Turnover $143 million; turnover per employee, $14,750.
- Degussa, Frankfurt—Turnover, $190 million.
- Chemische Werk Albert, Wiesbaden—Turnover, $22 million; export sales, $4 million; turnover per employee, $11,790.
- Wacker-Chemie, GmbH, Munich — Turnover, $56 million; turnover per employee, $10,980.
- Kali-Chemie, AG, Hanover—Sales, $49 million; exports, $12 million; turnover per employee, $8,800.

Where West Germany is making its greatest strides is in petrochemicals. The industry has grown in the Federal Republic in the last few years until it is now next to the United Kingdom as Europe's leading producer.

Significantly enough, the rise of petrochemical output will not affect coal chemicals, as these alone are not in a position to meet raw materials requirements anywhere.

Compared with the United States, where petrochemicals' share of the organics market is about 80 percent, West Germany's is only about 40 percent.

The latter figure can be expected to rise as needs develop, but not at the 20-percent-per-year clip witnessed during recent times.

Breakaway From Third Reich Techniques

One reason for the rapid development of petrochemistry in West Germany is the breakaway from the old Third Reich's tendency towards self-sufficiency in raw materials which required processes that were in many cases unreasonable and expensive.

Despite the giant steps forward being made by the West Germany chemical industry, there are three crucial problems which it faces right now:

- There is a terrific shortage of help. There are about 550,000 vacancies available in all West Germany industries, with only 134,000 unemployed—few of them technically qualified to step into a technical job.
- A crimp in investments brought about by inability of supplying industries to fill needs of the chemical industry promptly.
- Raw material shortages, due largely to decreased output of cokeoven plants. It's hoped that this latter shortage is temporary.

This story is based on papers prepared for the CMRA meeting by Dr. Ballabio of Montecatini and H. G. Sinkel, director of sales for Chemische Werke Huls. Mr. Sinkel's paper was read for him in his absence.

Ammonia Storage Facilities Are Increased by Mid-South

Mid-South Chemical Corporation has just added a 9,500-ton refrigerated, atmospheric pressure ammonia storage tank at Memphis, Tenn., and two spherical storage vessels at North Pekin, Ill.

The new installations, which will be in service by January 1, are part of a major expansion program which also has included launching of a new 1,000-ton ammonia barge for use in the Mississippi river system and the Intracoastal Waterways. Also, the firm has announced competion of a new warehouse and office building at North Pekin.

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Anti-Skinning Agents
NEVILLE CHEMICAL COMPANY • Pittsburgh 25, Pa.
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NEVILLE

PHOSPHORIC ACID, 85% N. F.
Tank Trucks, Drums, Carboys

PHOSPHORIC ACID, 80% F. G.
Tank Cars, Tank Trucks

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Tank Cars, Tank Trucks,
Drums, Carboys

DOMESTIC and EXPORT

RN

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Chemicals and Allied Products
342 MADISON AVENUE, NEW YORK 17, N. Y.
European Affiliate
RICHES-NELSON S. P. R. L. 72 Ave. Brillat-Savarin, BRUXELLES BELGIUM

PERSULPHATES

Ammonium $((NH_4)_2S_2O_8)$ Potassium $(K_2S_2O_8)$

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PULP & CHEMICAL CO., INC.
7 DEY STREET • NEW YORK 7, N.Y.
Established 1887

ACTIVE HALOGEN COMPOUNDS

NBS (N-Bromosuccinimide)
44.5% Min. Act. Br2

NBA (N-Bromoacetamide)
57% Min. Act. Br2

"DIBROMANTIN"
(Dibromodimethylhydantoin)
55.5% Min. Act. Br2

DIBROMOETHYLMETHYL-HYDANTOIN
52.5% Min. Act. Br2

DIBROMAMINE "B"
(N, N-Dibromobenzenesulfonamide)
58.4% Min. Act. Br2

"MONOBROMANTIN"
(Monobromodimethylhydantoin)
38% Min. Act. Br2

DICHLORAMINE "B"
(N, N-Dichlorobenzenesulfonamide)
31% Min. Act. CL2

NIS (Iodosuccinimide)
56.8% Min. Act. I2

MANUFACTURED BY **ARAPAHOE CHEMICALS, INC.**, BOULDER, COLORADO

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Chemical Corporation
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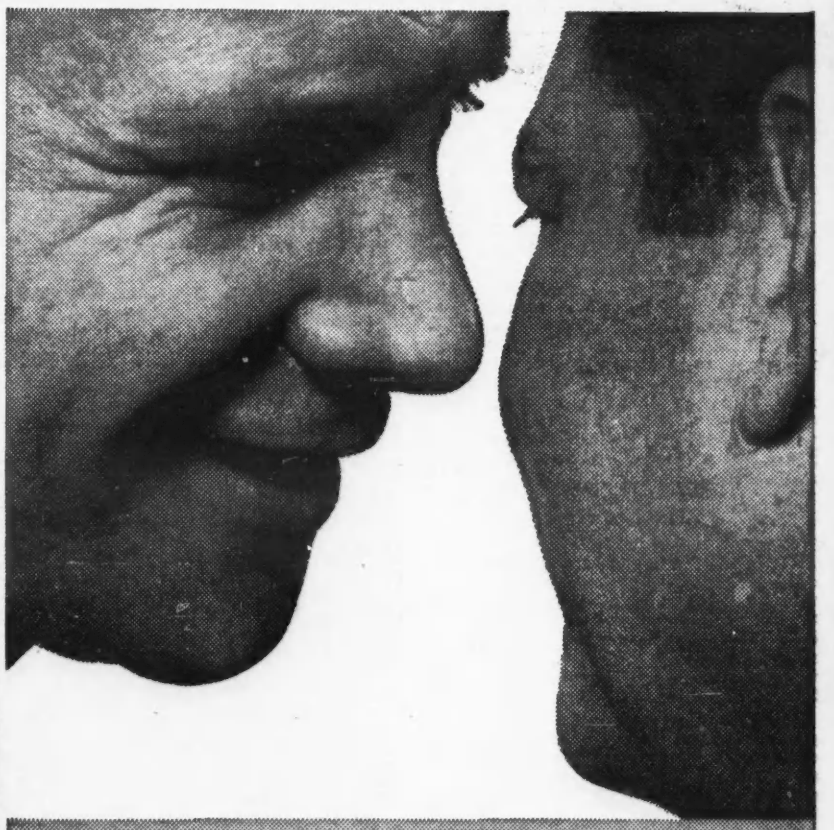

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